EXR-14
XR-2600/2900

SERVICE MANUAL

US Model
EXR-14

US Model
Canadian Model
XR-2600/2900

Photo: XR-2900 model

Model	EXR-14, XR-2600	XR-2900
Model Name Using Similar Mechanism	EXR-12, XR-6077	New
Tape Transport Mechanism Type	MG-36SHJ-32	MG-36ASH-32

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

10 watts per channel minimum continuous average power into 4 ohms, both channels driven, from 30 to 20,000 Hz with no more than 1.0% total harmonic distortion.

Tuner section

FM

Tuning range	87.5 – 107.9 MHz
Antenna terminal	External antenna connector/Power antenna relay control lead
Usable sensitivity	13 dBf (75 ohms)
Selectivity	more than 70 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (monaural)
Harmonic distortion at 1 kHz	0.9% (stereo), 0.5% (monaural)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz (±3 dB)
Capture ratio	2.0 dB

AM

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector/Power antenna relay control lead
Sensitivity	32 µV

Cassette player section

Tape track	4-track 2-channel stereo
Frequency response	40 – 15,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B*	Dolby off
TYPE II, IV	66 dB	58 dB
TYPE I	63 dB	55 dB

* XR-2900 only

Wow and flutter 0.13%

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	3.2 – 8 ohms
Maximum power output	22 W × 2 (at 4 ohms) 6 W × 4 (at 4 ohms)

General

Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Loudness	+10 dB at 100 Hz
Power requirements	12 V DC car battery (negative ground)
Mounting dimensions	Approx. 178 × 50 × 134 mm (w/h/d) (7 1/8 × 2 × 5 3/8 in.)
Mass	Approx. 1.2 kg (2 lb. 10 oz.)
Accessories supplied	Mounting hardware (1 set) Power connecting cord (1)

Design and specifications subject to change without notice

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation "DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

使用時は添付資料も参照のこと
Refer to the additional documents

FM/AM CASSETTE CAR STEREO

SONY®

Features

Tuner section

- SSIR (Sony Super Interference Rejection) PLL Synthesizer tuner.
- The quartz-locked digital synthesizer system enables easy and accurate tuning.
- Up to 12 FM and 6 AM stations can be preset.
- Automatic memory function allows you to store a total of 18 stations in the memory quickly and easily.
- Dolby B NR system* reduces tape hiss noises during tape playback.
- AMS (Automatic Music Sensor)* function for automatically locating the beginning of a track during tape playback.

*XR-2900 only.

Cassette player section

The auto-reverse function changes the tape direction automatically.

Power amplifier section

- Fader control for playback with a 4-speaker system.
- Maximum power output of 6 watts over 4 channels or 22 watts over 2 channels.

General

The quartz controlled digital clock.

SERVICING NOTE

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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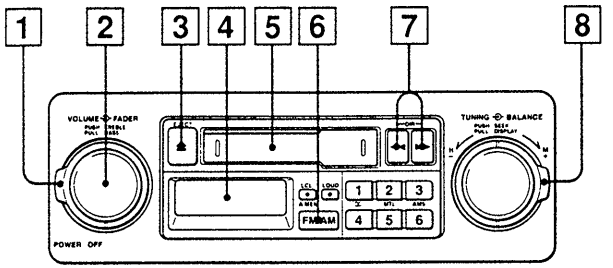
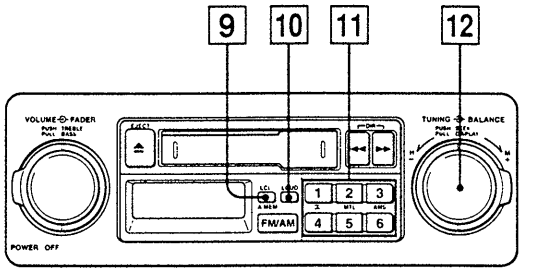
Location and Function of Controls





Refer to the page in ● for details.

1 FADER control
Turn clockwise to decrease the volume of the rear speakers or counterclockwise to decrease the volume of the front speakers.

2 POWER OFF (power on/off) switch/VOLUME/PUSH TREBLE/PULL BASS control

POWER OFF switch	Turn clockwise to turn on the unit and counterclockwise to turn off.
VOLUME control	Turn clockwise to increase volume and counterclockwise to decrease.
PUSH TREBLE control	Turn to adjust treble while pressing.
PULL BASS control	Turn to adjust bass while pulling.

3 EJECT button
Press to stop the tape and take out the cassette.

4 Display window

5 Cassette insertion door

6 FM/AM (band select) button
Each pressing on the button changes the band cyclically as follows:
FM1 → FM2 → AM → FM1 → ...

7 ◀◀ / ▶▶ (fast winding)/DIR (tape transport direction change) buttons

To listen to the other side of the cassette	Press ◀◀ and ▶▶ simultaneously.

To wind the tape rapidly		
Direction indicator	To advance	To rewind
►	Press ▶▶.	Press ◀◀.
◄	Press ◀◀.	Press ▶▶.

To resume playback, press ◀◀ or ▶▶ lightly, which is not pressed.

8 BALANCE control
Turn to adjust the balance of the left and right speakers.

9 LCL (local)/A.MEM (automatic memory) button ❽❿

LCL button	Press to eliminate interference from adjacent stations during reception of a station with comparatively strong broadcasting signals. To go back to the normal receiving sensitivity, press it again.
A.MEM button	Press for more than two seconds to memorize the stations automatically.

10 LOUD (loudness) button
Press to reinforce bass especially when listening at low volume. To disengage the button, press it again.

11 Preset number buttons

	XR-2900	XR-2600
1	**DD (Dolby noise reduction) button** Select the same Dolby NR system used for the recorded cassette.	Preset number buttons
2	**MTL (metal/CrO_2) button** "MTL" indication appears on the display window. To listen to the normal (TYPE I) tapes, press it again.	
3	**AMS (automatic music sensor) button ❼**	
4 5 6	–	

12 TUNING/PUSH SEEK/PULL DISPLAY knob

TUNING knob	Turn to manually tune in the desired station.
PUSH SEEK knob	Press for automatic tuning.
PULL DISPLAY knob	Pull to display the time indication during radio reception.

Use this knob also for clock setting. ❻

This section is extracted from XR2600/2900 instruction manual.

Installation

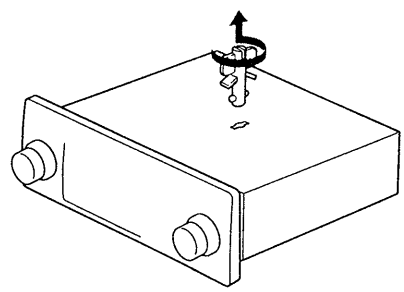
Precautions

- Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the driver.
- Avoid installing the unit where it should be subject to high temperatures, such as from direct sunlight or hot air from the heater, or where it would be subject to dust, dirt or excessive vibration.
- Use only the supplied mounting hardware for a safe and secure installation.

Basic Installation

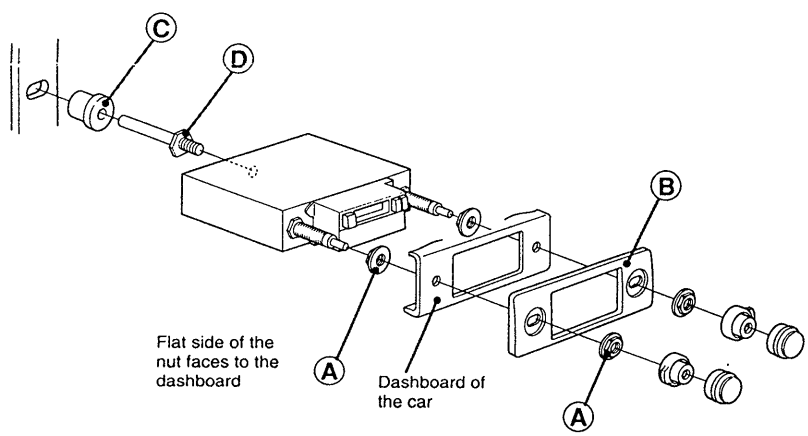
Use the mounting hardware supplied with the unit.

Remove the transit lock.



Turn 90° and then pull it out.

Mount the unit.



Connections

Caution

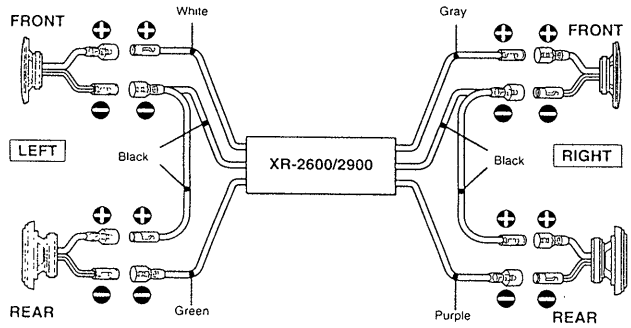
- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the red power input lead only after all other leads are connected. Be sure to connect it to the positive 12 V power terminal which will be energized when the ignition key is set to the accessory position.
- **Run all ground wires to a common ground point.**

Speaker Connection

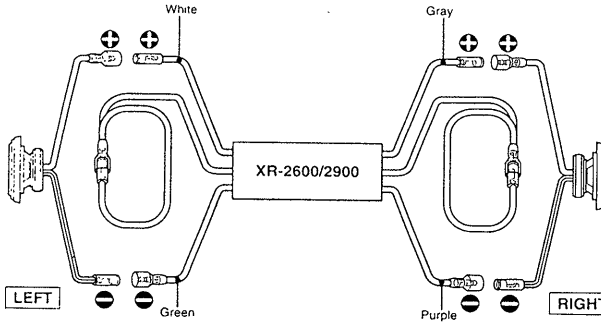
Notes on speaker connection

- Use speakers with an impedance of 3 2 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.

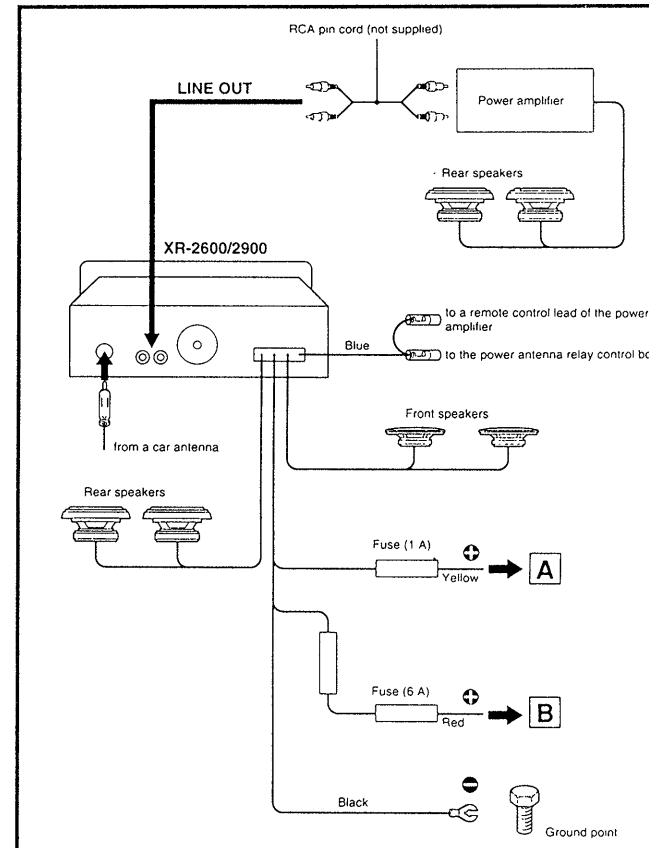
4-speaker connection



2-speaker connection



Connection Diagram



Destination

A To the +12 V terminal which is energized at all times

B To the +12 V power terminal which is energized with the ignition key in the accessory position

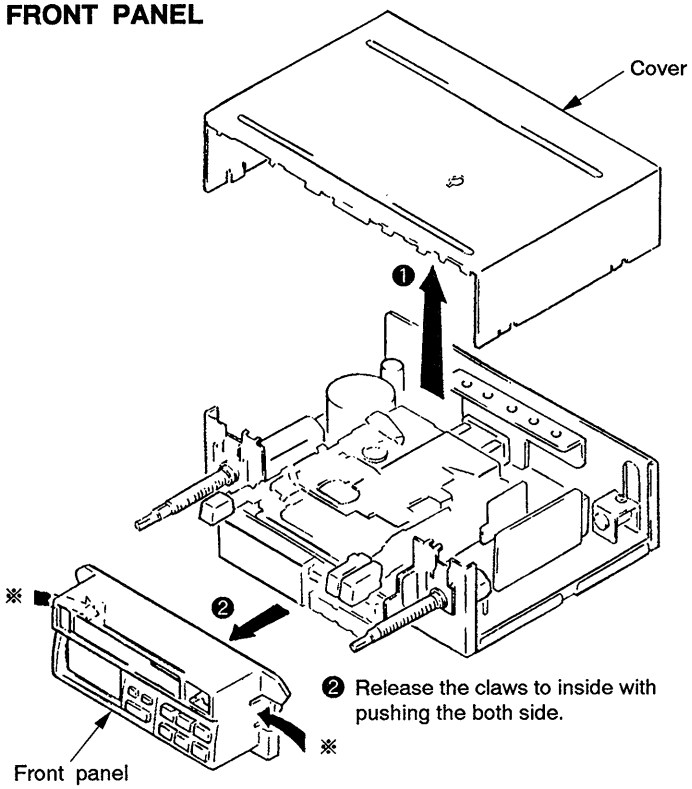
Cord color

Red	Power input lead
Yellow	Power input lead
Blue	Power antenna relay control lead/Power amplifier control lead
Black	Ground wire

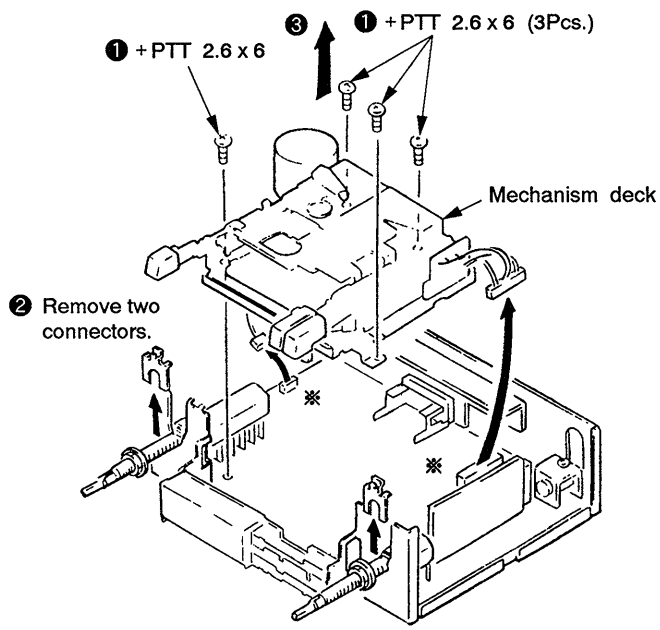
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

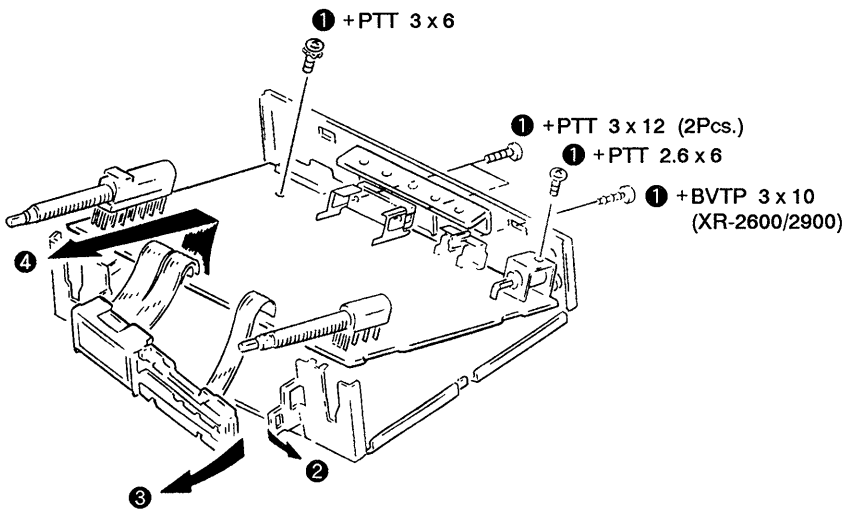
FRONT PANEL



MECHANISM DECK



MAIN BOARD/CONTROL BOARD



SECTION 3
ADJUSTMENTS

3-1. MECHANICAL ADJUSTMENT

No mechanical adjustments applied to this unit.

• Torque Measurement

Mode	Torque Meter	Torque
FWD	CQ-102B	40 to 75 g • cm
REV	CQ-102RB	(0.56 to 1.05 oz • inch)
FF	CQ-201A	45 to 150 g • cm
REW		(0.62 to 2.08 oz • inch)

3-2. ELECTRICAL ADJUSTMENTS

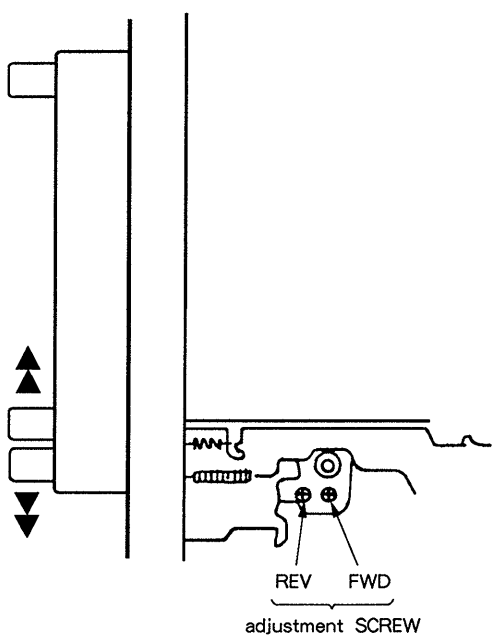
Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Power-supply voltage is + 14.4V DC as per Ad Hoc recommendation.
- Switches and controls should be set as follows unless otherwise specified.

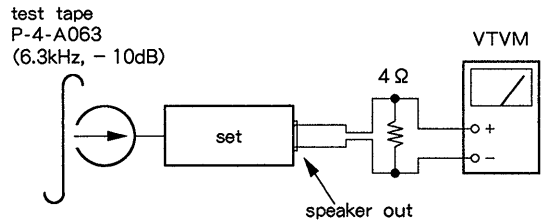
POWER switch : ON
BALANCE control : center click

TAPE SECTION

Adjustment Location:

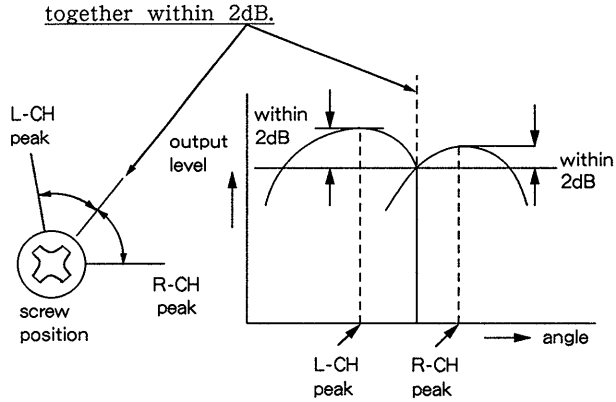


Playback Head Azimuth Adjustment

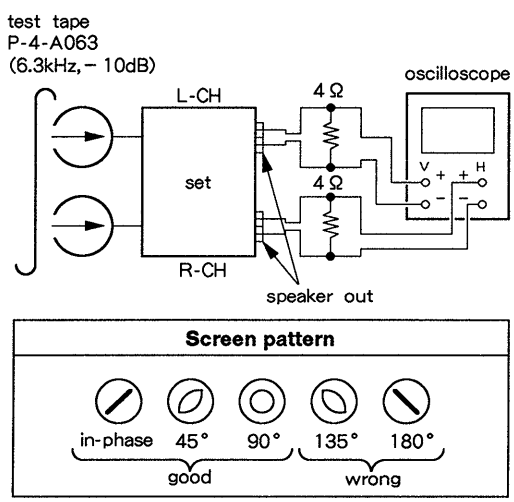


Procedure:

1. Mode : playback
   Adjust for forward (▶) direction and reverse (◀) direction.
2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match together within 2dB.



3. Phase Check
   Confirm that phase difference between L-channel and R-channel is within 90° .

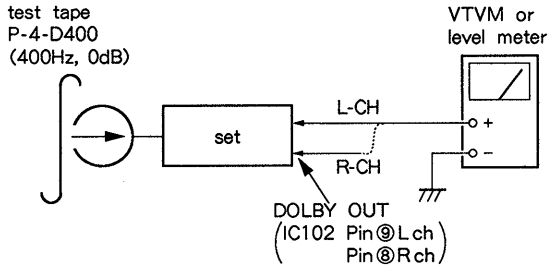


4. Repeat the above adjustment for reverse playback mode.
5. After the adjustment, lock the screw with locking compound.

DOLBY NR Level Adjustment (XR-2900)

Setup:

DOLBY NR switvh : OFF
METAL switch : OFF



Procedure:

1. Put the set into the FWD PB mode.
2. Adjust RV101 (L-CH) so that VTVM reading is −10dB ± 1dB.
3. Adjust RV201 (R-CH) so that VTVM reading is −10dB ± 1dB.
4. Put the set into the REV PB mode.

FM SECTION

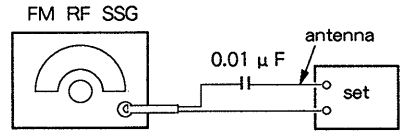
(The FM front-end is carefully adjusted at the factory and is supplied as one whole block for replacement.)

FM IF Adjustment

Setup:

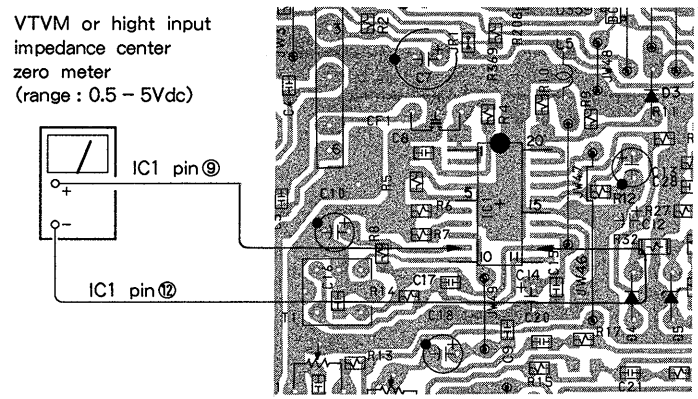
Note: center-zero meter should be of high input impedance type.

BAND : FM MONO
Frequency : 98MHz



Carrier frequency : 98MHz
Output level : 1mV (60dB)
Modulation : 1kHz, 75kHz deviation (100%)
Mode : monaural

【MAIN BOARD】 − Conductor side −



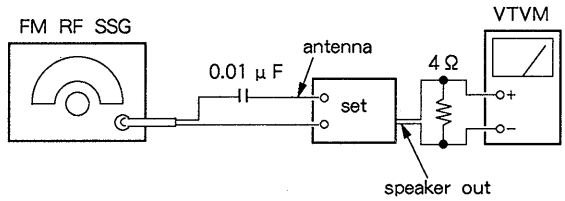
Procedure:

Slowly adjust the core of T1 to obtain a zero (0) V reading on VTVM or zero-center DC voltmeter.

FM Stereo Separetion Adjustment

Setup:

BAND : FM Stereo
Frequency : 98MHz



Carrier frequency : 98MHz
Output level : 70dB (3.15mV)
Modulation : 1kHz
main : 33.75kHz dev.
sub : 33.75kHz dev.
19kHz pilot : 7.5kHz dev.

Procedure:

1. Set the output level of a signal generator to 70dB and then adjust the output to 0dB with the volume control.
2. Adjust RV1 for a best stereo separation.

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	ⓐ
R-CH	L-CH	ⓑ Adjust RV1 for minimum reading.
R-CH	R-CH	ⓒ
L-CH	R-CH	ⓓ Adjust RV1 for minimum reading.

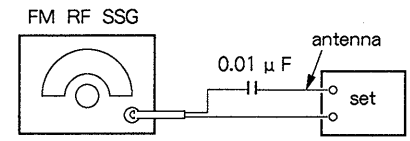
L-CH stereo separation : ⓐ−ⓑ
R-CH stereo separation : ⓒ−ⓓ
The separations of both channels should be equal.

3. Adjust so that separation is maximized. (separation > 27dB)

FM Auto-scan Stop Level Adjustment

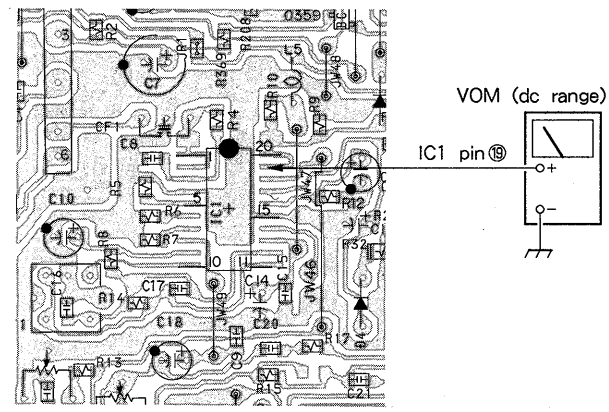
Setup:

BAND : FM MONO
Frequency : 98MHz



Carrier frequency : 98MHz
Output level : 25dB (17.8 μ V)
Modulation : no modulation

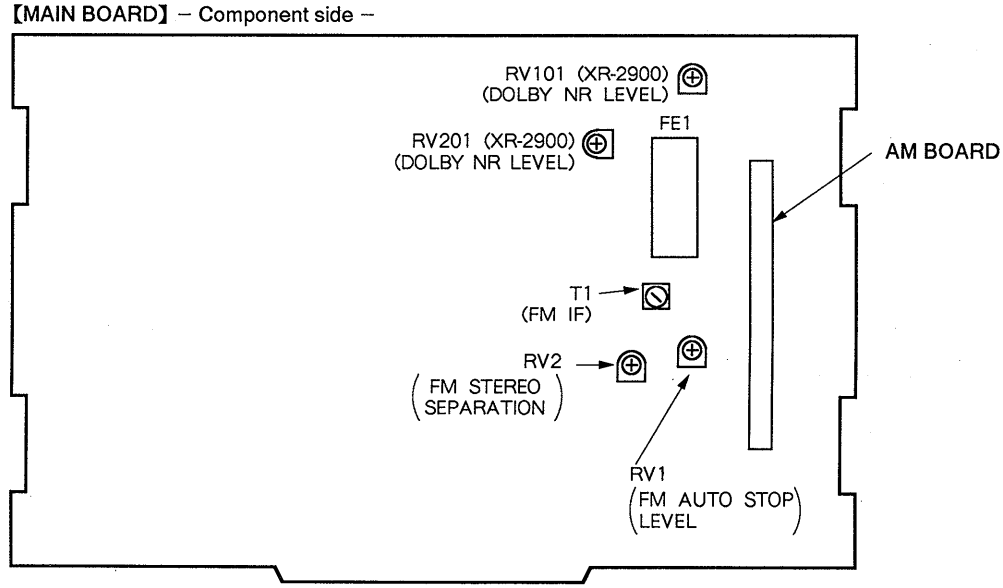
【MAIN BOARD】 − Conductor side −



Procedure:

1. Adjust RV1 at the point where the VOM reading changes from low to high.
2. Confirm that the set stops auto-scanning with FM RF SSG output level set at 25 ± 2dB.

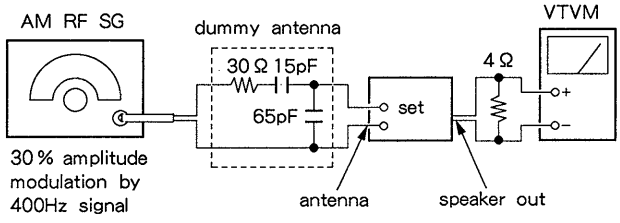
Adjustment Location: 【MAIN BOARD】 − Component side −



AM SECTION

AM IF Tracking Adjustment

Setup:



AM IF ADJUSTMENT
Adjust for a maximum reading on VTVM.
T55, 56

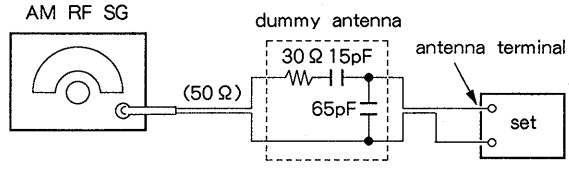
AM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T52, 53	600kHz

AM Auto-scan Stop Level Adjustment

Note: Be sure to perform this adjustment after "FM Auto-scan Stop Adjustment".

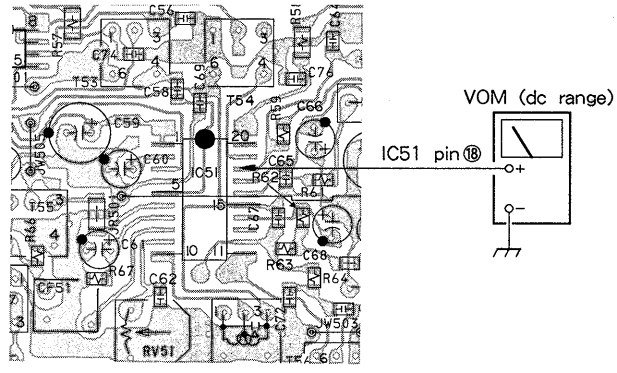
Setup:

Band : AM
Frequency : 600kHz



Carrier frequency : 600kHz
Output level : 30dB
Modulation : no modulation

【AM BOARD】 – Conductor side –

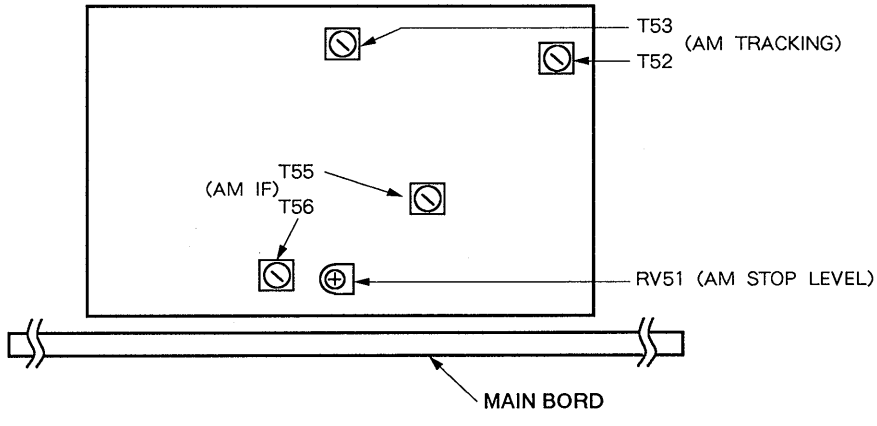


Procedure:

1. Adjust RV51 at the point where the VOM reading changes from low to high.
2. Confirm that the set stops auto-scanning with AM RF SG output level set at 30 ± 2dB.

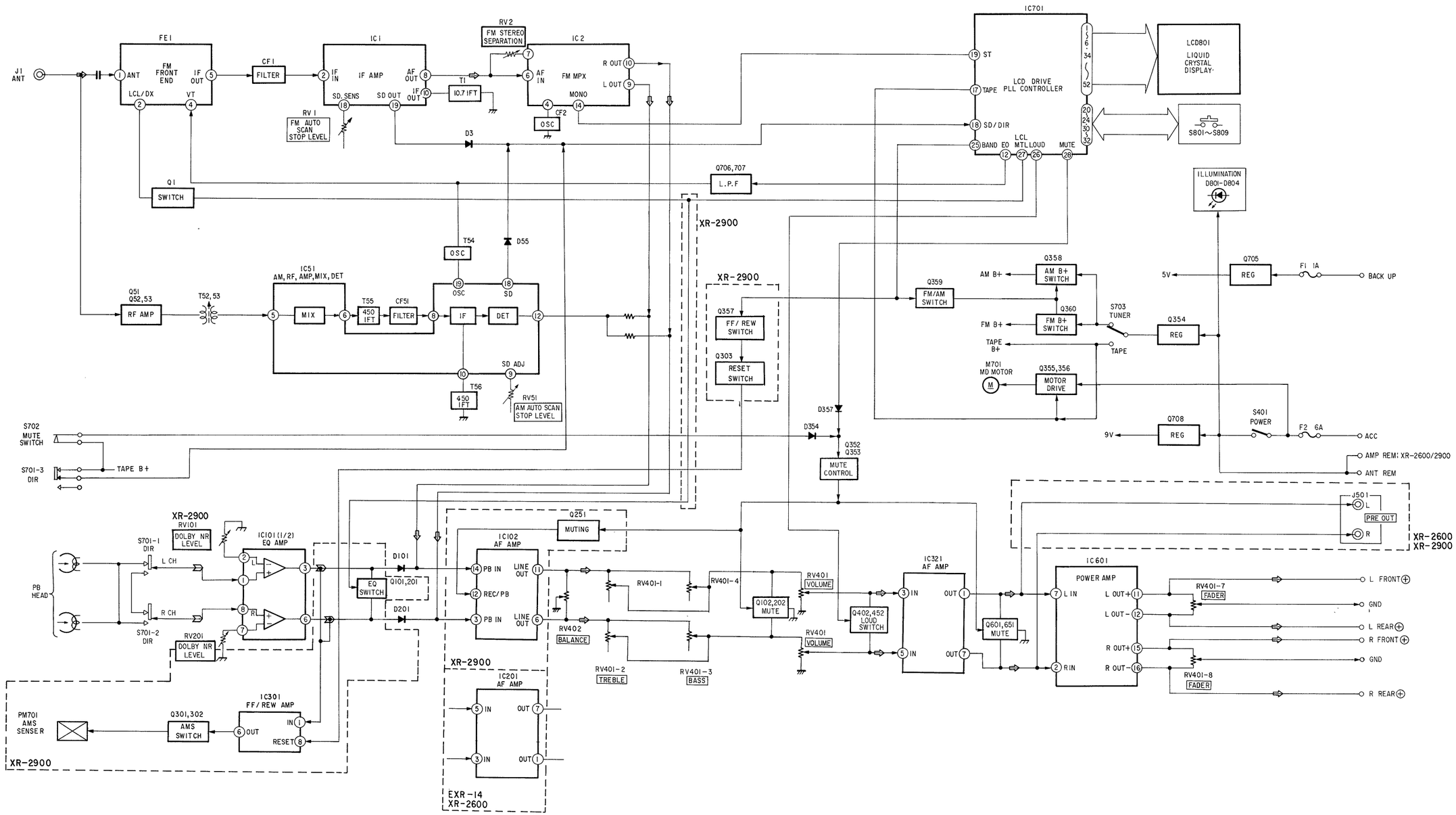
Adjustment Location:

【AM BOARD】 – Component side –



SECTION 4
DIAGRAMS

4-1. BLOCK DIAGRAM



4-2. SEMICONDUCTOR LEAD LAYOUTS

μPD1708AG

2SA881-R
2SC2673

MTZJ-T-77-3.6B
MTZN-10B
RD2.7ESB2
RD5.6ESB2
RD6.2ESB2
RD9.1ESB2
1SS119
11ES2

DTA114EK
DTA143XK
DTC114TK
DTC124EK
DTC144TK
DTC144WK
2SA1162-G
2SC2412-KLN-E
2SD1757K-RS

2SD1802-S

1S2472

2SD2012

SEL6914A

DTA114ES
2SC2668-Y

2SK523-M1

2SA1150-Y
2SC2785-HFE
2SC5365P-G
2SD1468S-S

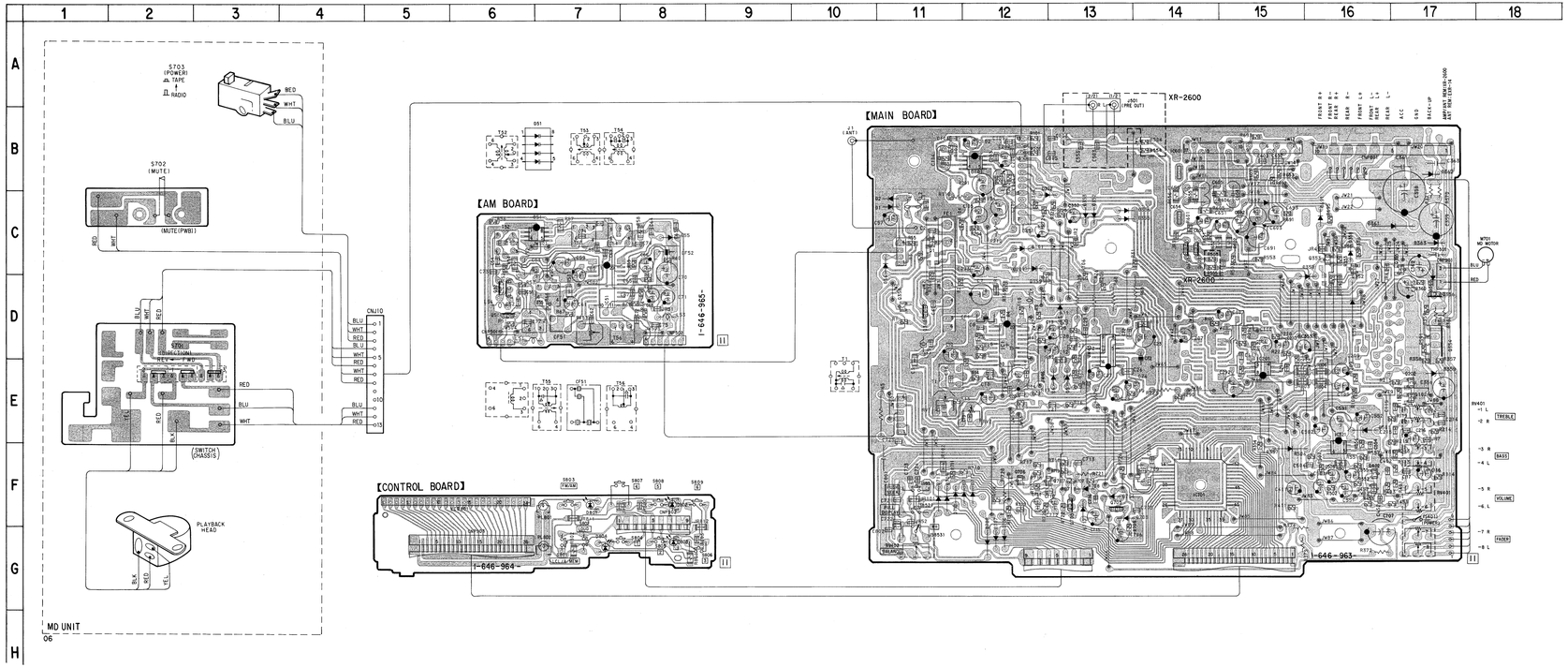
KV1583BMTR

• Semiconductor Location

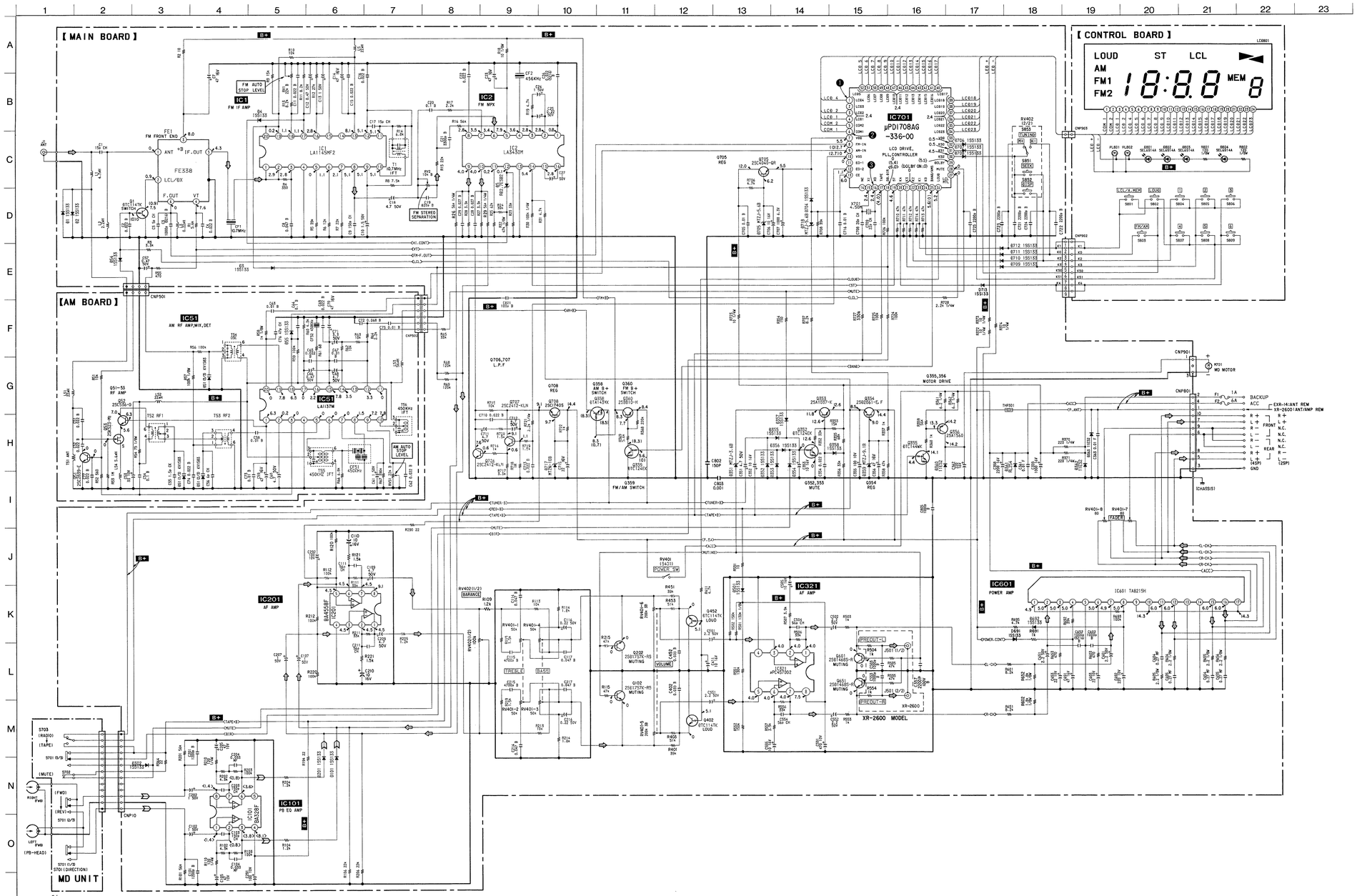
Ref. No.	Location	Ref. No.	Location
D1	C-11	D718	F-13
D2	C-11	D801	F-7
D3	D-13	D802	F-8
D4	E-13	D803	G-8
D5	E-13	D804	G-7
D51	C-6		
D54	C-11	IC1	D-12
D55	C-8	IC2	D-13
D101	C-12	IC51	D-7
D201	C-12	IC101	B-12
D302	C-13	IC201	E-15
D351	D-16	IC321	F-16
D352	C-13	IC601	B-14
D353	C-13	IC701	F-14
D354	D-16		
D355	C-13	Q1	C-11
D356	C-13	Q51	D-6
D357	F-15	Q52	D-6
D358	C-16	Q53	D-6
D359	E-17	Q102	E-17
D360	D-17	Q202	E-17
D361	C-16	Q352	D-16
D362	B-17	Q353	C-16
D363	C-17	Q354	D-17
D501	E-16	Q355	C-17
D691	C-16	Q356	D-17
D692	C-15	Q358	D-11
D704	F-13	Q359	F-12
D705	F-13	Q360	D-11
D706	G-12	Q402	F-16
D707	G-12	Q452	F-16
D708	G-12	Q601	C-14
D709	F-11	Q651	C-14
D710	F-11	Q705	F-13
D711	F-12	Q706	F-12
D712	F-12	Q707	F-12
D713	F-11	Q708	F-13
D717	F-13		

Note:
• ○—— : parts extracted from the component side.

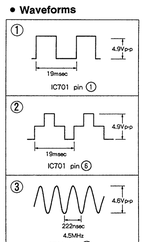
4-3. PRINTED WIRING BOARDS (EXR-14/XR-2600 model)



4-4. SCHEMATIC DIAGRAM (EXR-14/XR-2600 model)

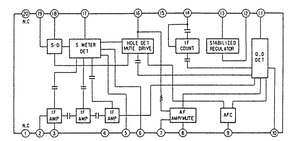


• Waveforms

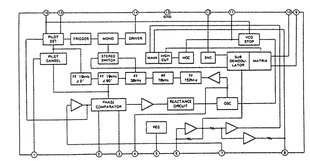


• IC BLOCK DIAGRAMS

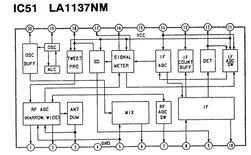
IC1 LA1145MF2



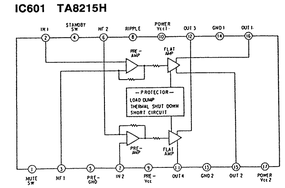
IC2 LA3430M



IC51 LA1137NM



IC601 TA8215H

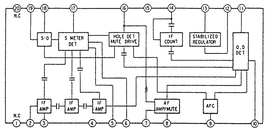


Note:

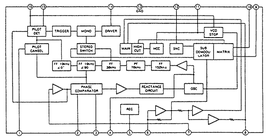
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BACK-UP cords.
- Voltage and waveforms are dc with respect to ground under no -signal (detuned) conditions.
  no mark :FM
  ( ) :AM
  〈 〉:TAPE
- Voltages are taken with a VOM. (Input impedance 10MΩ)
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : PB

• IC BLOCK DIAGRAMS

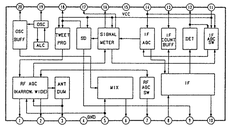
IC1 LA1145MF2



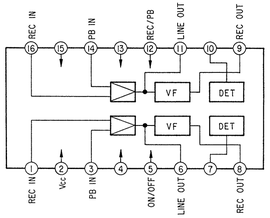
IC2 LA3430M



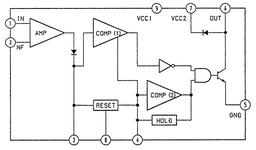
IC51 LA1137NM



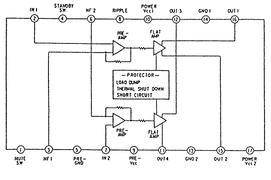
IC102 CXA1101M



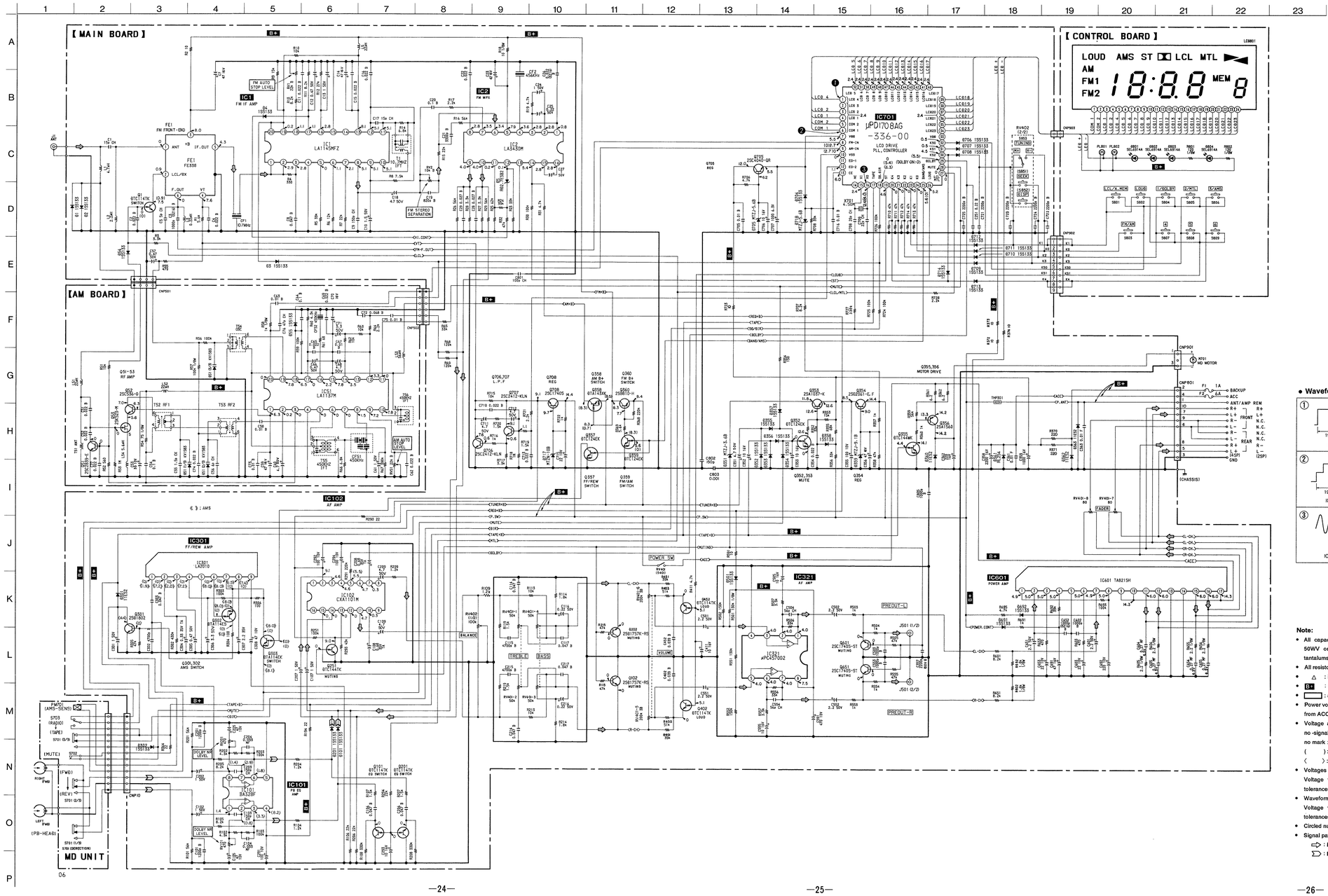
IC301 LA2010



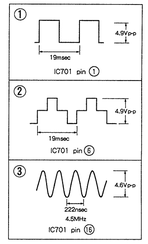
IC601 TA8215H



4-5. SCHEMATIC DIAGRAM (XR-2900 model)



• Waveforms

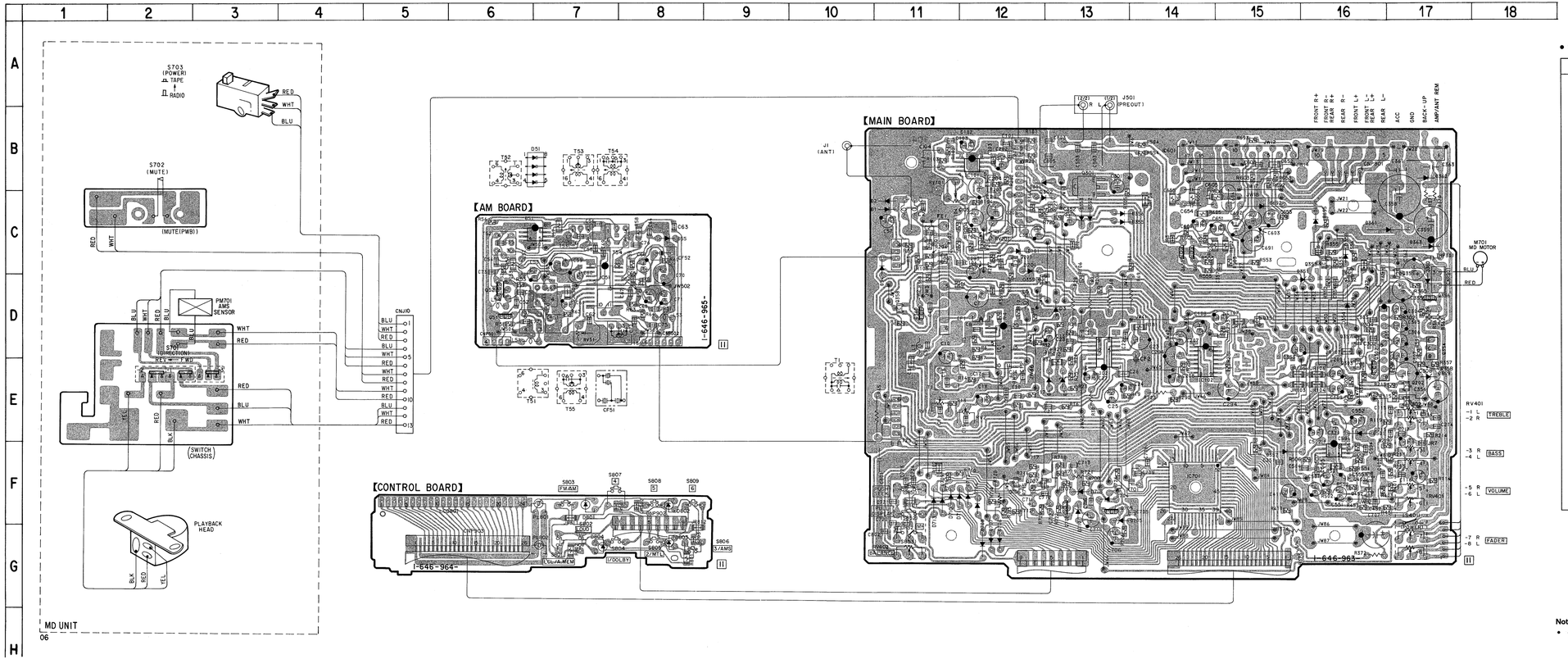


Note:

- All capacitors are in μF unless otherwise noted. pF : μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ line.
- ▬ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BACK-UP cords.
- Voltage and waveforms are dc with respect to ground under no -signal (detuned) conditions.
  no mark :FM
  ( ) :AM
  〈 〉:TAPE
- Voltages are taken with a VOM. (Input impedance 10MΩ)
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : PB

4-6. PRINTED WIRING BOARDS (XR-2900 model)

• See Page 14 for Semiconductor Lead Layouts.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	C-11	D803	G-8
D2	C-11	D804	G-7
D3	D-13		
D4	E-13	IC1	D-12
D5	E-13	IC2	D-13
D51	C-6	IC51	D-7
D54	C-11	IC101	B-12
D55	C-8	IC102	E-14
D101	C-12	IC301	D-16
D201	C-12	IC321	F-16
D301	B-12	IC601	B-14
D302	C-13	IC701	F-14
D351	D-16		
D352	C-13	Q1	C-11
D353	C-13	Q51	D-6
D354	D-16	Q52	D-6
D355	C-13	Q53	D-6
D356	C-13	Q101	C-11
D357	F-15	Q102	E-17
D358	C-16	Q201	C-12
D359	E-17	Q202	E-17
D360	D-17	Q251	D-15
D361	C-16	Q301	B-13
D362	B-17	Q302	E-16
D363	C-17	Q303	E-16
D501	E-16	Q352	D-16
D691	C-16	Q353	C-16
D692	C-15	Q354	D-17
D704	F-13	Q355	C-17
D705	F-13	Q356	D-17
D706	G-12	Q357	D-16
D707	G-12	Q358	D-11
D708	G-12	Q359	D-12
D709	F-11	Q360	D-11
D710	F-11	Q402	F-16
D711	F-12	Q452	F-16
D712	F-12	Q601	C-14
D713	F-11	Q651	C-14
D714	F-12	Q705	F-13
D717	F-13	Q706	F-12
D718	F-13	Q707	F-12
D801	F-7	Q708	F-13
D802	F-8		

Note:

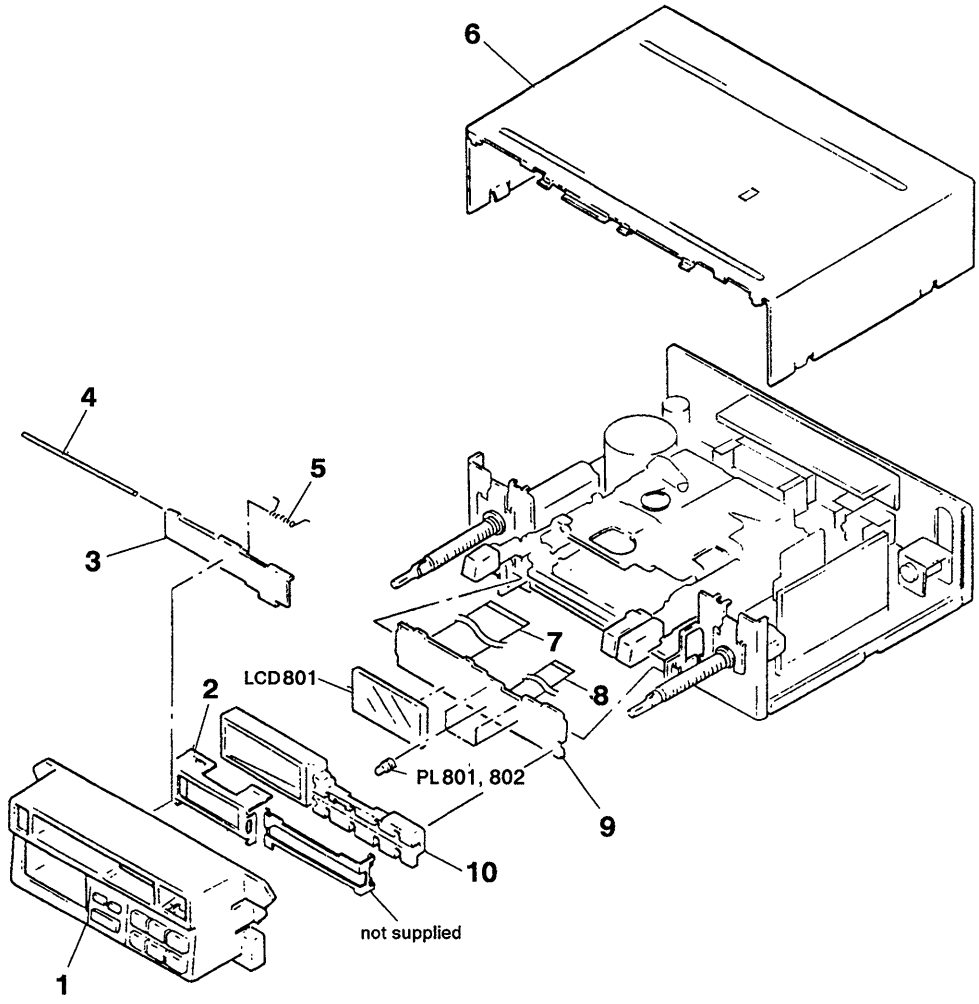
• o—— : parts extracted from the component side.

SECTION 5
EXPLODED VIEWS

NOTE:

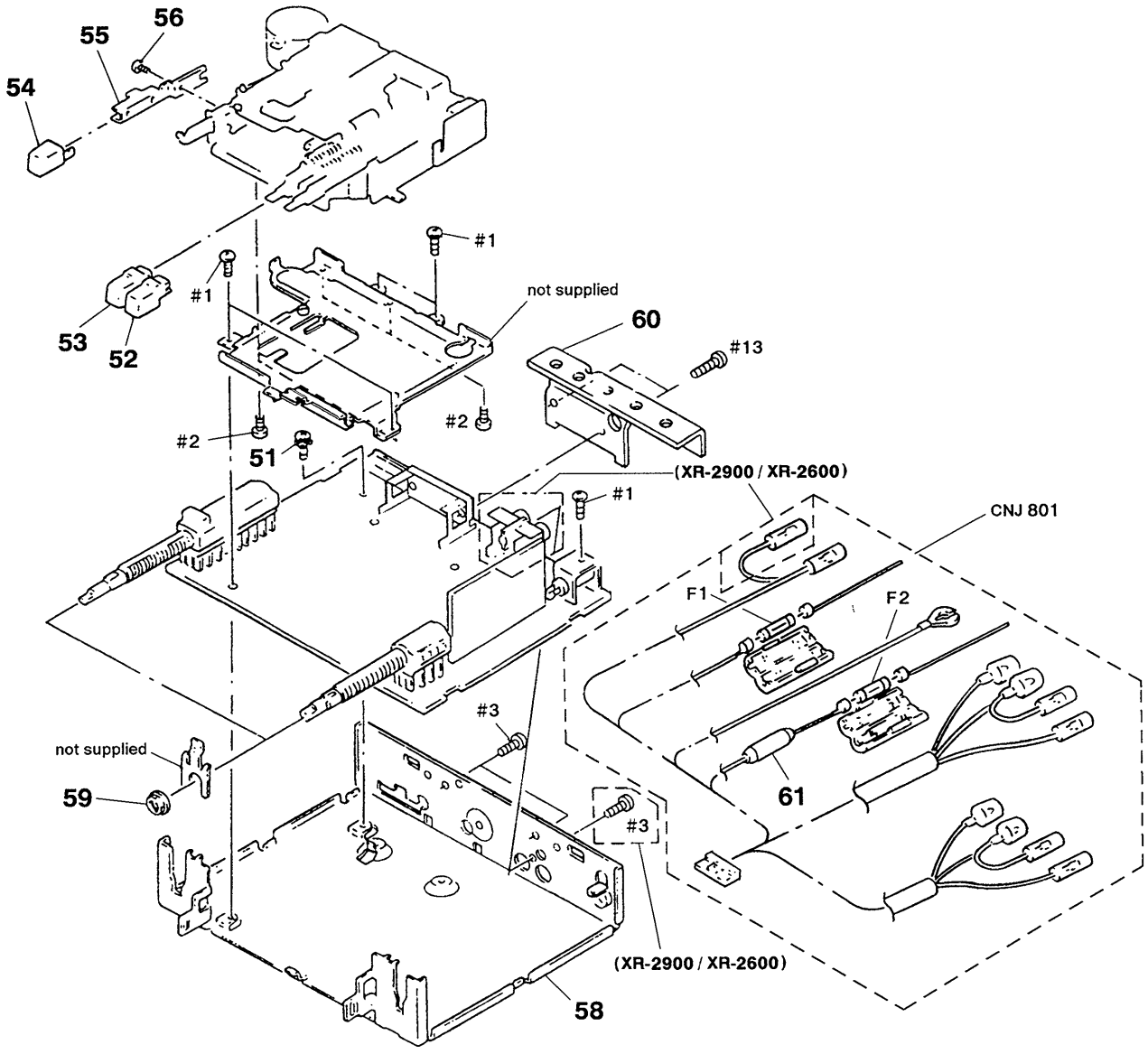
- -XX,-X mean standardized parts, so they may have some difference from the original one.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

5-1. CHASSIS ASSEMBLY-1



Ref. No.	Part No.	Description	Remark
1	X-3366-148-1	PANEL SUB ASSY, FRONT	(XR-2900)
1	X-3366-149-1	PANEL SUB ASSY, FRONT	(XR-2600)
1	X-3366-231-1	PANEL SUB ASSY, FRONT	(EXR-14)
2	3-373-623-01	BRACKET (LCD)	
3	3-387-119-11	LID, CASSETTE	(EXR-14)
3	3-387-119-31	LID, CASSETTE	(XR-2600)
3	3-387-119-41	LID, CASSETTE	(XR-2900)
4	3-332-130-01	SHAFT, C DOOR	
5	3-559-944-00	SPRING	
6	3-373-620-01	COVER	
7	1-751-021-11	CABLE, FLAT (28 CORE)	
8	1-535-667-81	WIRE (FLAT TYPE) (9 CORE)	
* 9	1-646-964-11	CONTROL BOARD	
10	3-373-630-01	PLATE, LIGHT GUIDE	
LCD801	1-810-023-11	DISPLAY PANEL, LIQUID CRYSTAL	
PL801	1-518-615-21	LAMP, PILOT	
PL802	1-518-615-21	LAMP, PILOT	

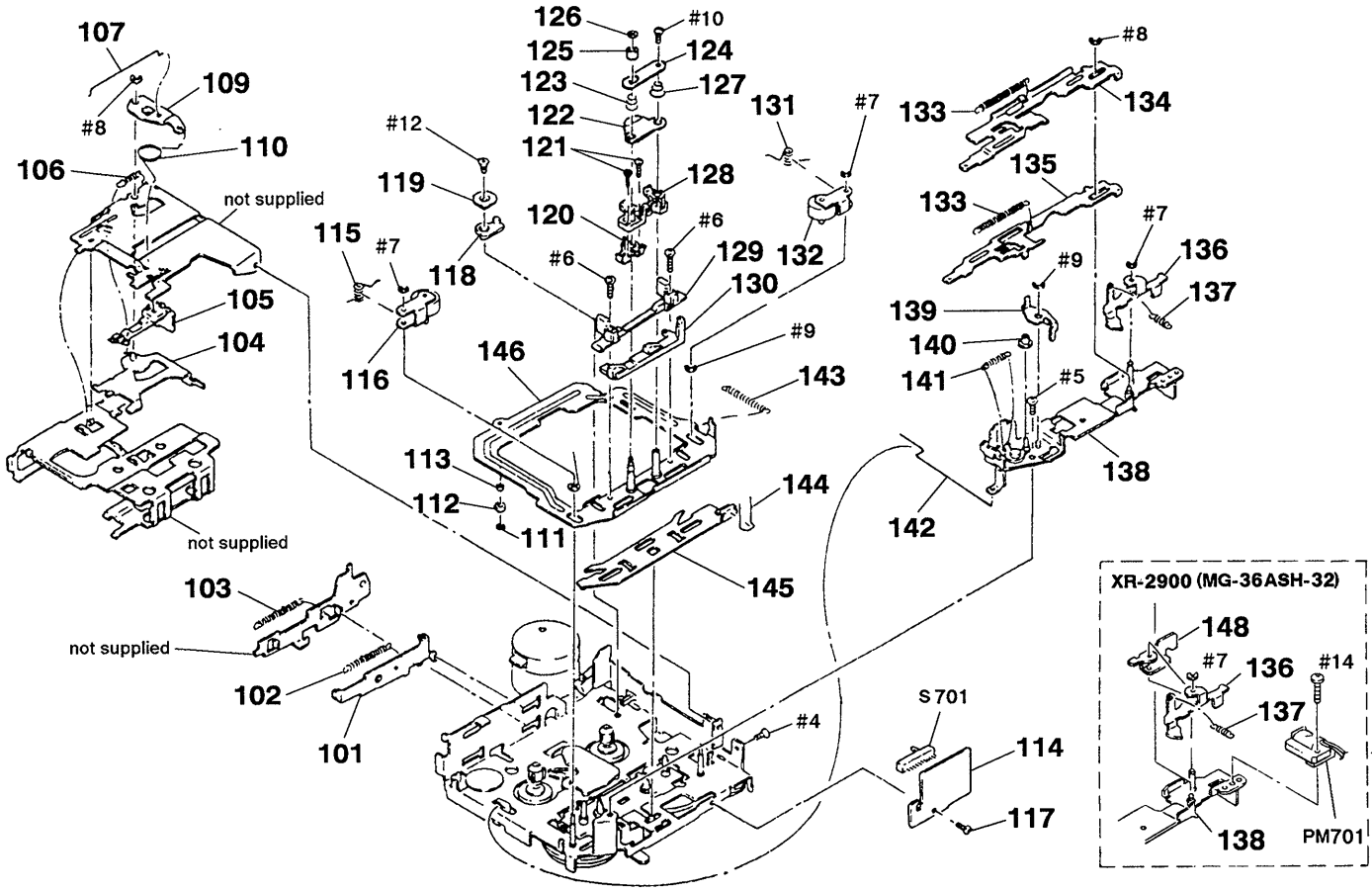
5-2. CHASSIS ASSEMBLY-2



Ref. No.	Part No.	Description	Remark
51	3-344-501-01	SCREW (+PTT 3X6), GROUND POINT	
52	3-373-633-01	BUTTON (FF)	
53	3-373-632-01	BUTTON (REW)	
54	3-373-631-01	BUTTON (EJECT)	
55	3-392-429-01	LEVER (EJECT)	
56	3-372-033-11	SCREW (2.6X3), +P	
* 57	A-3222-535-A	MAIN BOARD, COMPLETE	(XR-2900)
* 57	A-3222-537-A	MAIN BOARD, COMPLETE	(XR-2600)
* 57	A-3222-554-A	MAIN BOARD, COMPLETE	(EXR-14)
58	X-3366-790-1	CHASSIS ASSY	(XR-2600/2900)
58	X-3366-791-1	CHASSIS ASSY	(EXR-14)

Ref. No.	Part No.	Description	Remark
59	3-575-039-00	NUT, CONTROL	
* 60	3-386-157-01	HEAT SINK	
61	1-424-629-21	COIL, CHOKE 500uH	
CNJ801	1-751-069-11	CORD (WITH CONNECTOR AND FUSE)	(XR-2600/2900)
CNJ801	1-751-069-21	CORD (WITH CONNECTOR AND FUSE)	(EXR-14)
F1	1-533-287-11	FUSE (1A)	
F2	1-533-301-11	FUSE (6A)	

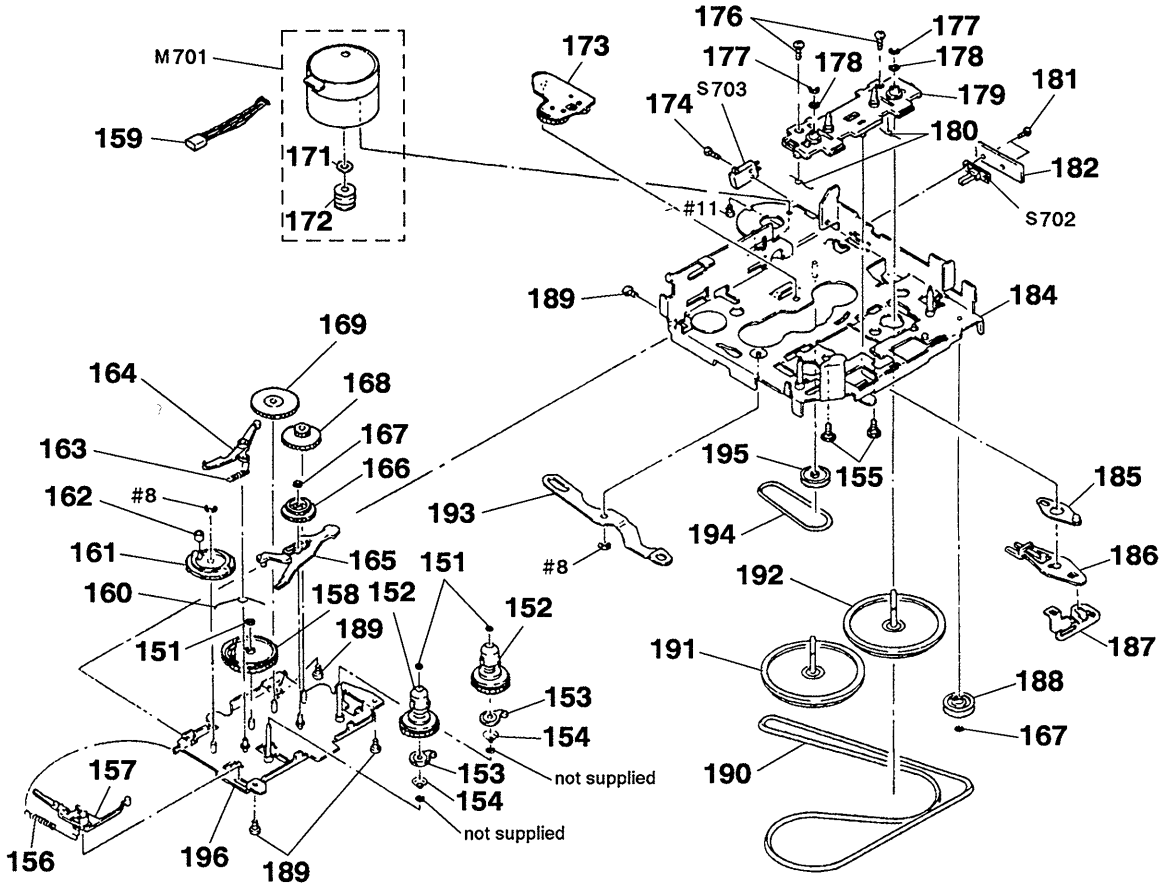
5-3. MD ASSEMBLY-1 (MG-36SHJ-32) (EXR-14/XR-2600) (MG-36ASH-32) (XR-2900)



Ref.No.	Part No.	Description	Remark
* 101	3-392-978-01	LEVER, EJECT	
102	3-392-950-01	SPRING	
103	3-392-951-01	SPRING	
* 104	3-392-921-01	LOCK ASSY, EJECT CAM	
105	3-392-972-01	HOOKER, TAPE	
106	3-392-953-01	SPRING	
107	3-392-969-01	LINK, RETURN	
* 109	3-392-932-01	PLATE, CENTER	
110	3-392-961-01	SPRING (B)	
111	3-570-615-00	POLY-WASHER (DIA. 1.2)	
112	3-392-945-01	ROLLER (A), H.P	
113	3-392-942-01	ROLLER (B), H.P	
114	3-392-970-01	CHASSIS, SWITCH	
115	3-392-958-01	SPRING (R)	
116	3-375-378-01	ARM (R) ASSY, PINCH	
* 117	4-908-792-11	SCREW (B2X3), TAPPING, P1	
118	3-372-244-01	ARM (N), MUTE	
* 119	3-397-427-01	COLLAR, MUTE ARM	
120	3-377-908-01	SHIM (X), ADJUSTOR	
121	3-375-379-01	SCREW, AZIMUTH	
122	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
123	3-392-956-01	SPRING (A)	
* 124	3-392-930-01	RETAINER, SPRING	
125	3-392-943-01	ROLLER, FF	
126	3-676-387-00	POLY-SLIDER (DIA. 1.6)	
127	3-392-955-01	SPRING (A)	

Ref.No.	Part No.	Description	Remark
* 128	3-379-142-01	ARM (B), ADJUSTOR	
129	3-392-984-02	GUIDE, TAPE	
130	3-377-909-02	LINK (X), ADJUSTOR	
131	3-392-957-01	SPRING (F)	
132	3-375-377-01	ARM (F) ASSY, PINCH	
133	3-392-948-01	SPRING	
* 134	3-392-906-01	LEVER (A), FF	(XR-2900)
* 134	3-392-980-01	LEVER, FF	(XR-2600/EXR-14)
* 135	3-392-907-01	LEVER (A), REW	(XR-2900)
* 135	3-392-981-01	LEVER, REW	(XR-2600/EXR-14)
* 136	3-392-904-01	ARM (A), LOCK	(XR-2900)
* 136	3-392-935-01	ARM, LOCK	(XR-2600/EXR-14)
137	3-392-902-01	SPRING (A)	(XR-2900)
137	3-392-917-01	SPRING	(XR-2600/EXR-14)
* 138	3-372-242-01	BRACKET ASSY (D), LEVER	
* 139	3-392-933-01	LEVER (B), CHANGE	
140	3-392-994-01	ROLLER, PROGRAM	
141	3-392-954-01	SPRING	
142	3-372-243-01	LINK (B), SELECTOR	
143	3-392-952-01	SPRING	
144	3-392-962-01	SPRING	
* 145	3-392-919-01	ARM ASSY, F,R SELECTION	
* 146	3-392-975-05	PLATE ASSY (S), HEAD	
148	3-392-903-01	ARM, RELEASE	(XR-2900)
PM701	1-454-464-12	SOLENOID, PLUNGER(AMS SENSOR)	(XR-2900)
S701	1-692-036-11	SWITCH, SLIDE (FWD→REV)	

5-4. MD ASSEMBLY-2 (MG-36SHJ-32) (EXR-14/XR-2600) (MG-36ASH-32) (XR-2900)



Ref.No.	Part No.	Description	Remark
151	3-676-387-00	POLY-SLIDER (DIA.1.6)	
152	3-376-196-01	SPINDLE ASSY (S), REEL (XR-2600/EXR-14)	
152	3-385-263-01	SPINDLE ASSY (D), REEL (XR-2900)	
153	3-375-380-01	CAM ASSY, DETECTION	
154	3-370-619-01	SPRING, BACK TENSION	
155	3-392-918-01	SCREW, EJECT HOOK	
156	3-392-959-01	SPRING	
157	3-392-985-02	RATCHET	
158	3-392-990-01	GEAR, DETECTION	
* 159	3-376-195-01	CONNECTOR ASSY (3P)	
160	3-392-960-01	SPRING	
161	3-392-987-01	GEAR, SELECTOR	
162	3-392-944-01	COLLAR (CELECTER GEAR)	
163	3-375-131-01	SPRING, GEAR LOCK ARM	
164	3-392-989-02	ARM, GEAR LOCK	
165	3-392-986-01	ARM, SENSOR	
166	3-392-915-01	GEAR, IDLE	
167	3-570-615-00	POLY-WASHER (DIA.1.2)	
168	3-392-936-01	GEAR (A)	
169	3-392-937-01	GEAR (B)	
* 171	3-392-912-01	WASHER, MYLAR	
* 172	3-392-913-01	PULLEY, MOTOR	
173	3-392-916-01	ARM ASSY, TU GEAR	
174	3-318-203-11	SCREW (B1.7X6), TAPPING	
176	3-318-204-81	SCREW (M1.7X3), TAPPING	

Ref.No.	Part No.	Description	Remark
177	3-590-768-00	RING (A), E	
178	3-701-437-11	POLY-SLIDER (A)	
* 179	3-375-381-01	BRACKET ASSY (X), CM	
180	3-392-963-01	SPRING (R)	
181	3-318-204-91	SCREW (M1.7X4), TAPPING	
182	3-375-376-01	MUTE (PWB)	
* 184	3-392-974-01	CHASSIS ASSY, MAIN	
* 185	3-392-925-01	ARM (A) ASSY, F.R	
* 186	3-392-939-01	ARM, FF	
* 187	3-392-934-01	ARM (B), F.R	
188	3-392-941-01	PULLEY (A), IDLE	
* 189	4-908-792-11	SCREW (B2X3), TAPPING, P1	
190	3-392-967-01	BELT, MAIN	
191	3-392-995-02	FLYWHEEL ASSY (BR)	
192	3-392-926-02	FLYWHEEL ASSY (BF)	
* 193	3-392-979-01	LEVER, REVERSE	
194	3-375-375-02	BELT (C), SUB	
195	3-392-938-01	GEAR, PULLY	
* 196	3-392-976-01	BASE ASSY, REEL	
M701	X-3364-496-1	MOTOR ASSY	
S702	1-692-065-11	SWITCH, LEAF (MUTE)	
S703	1-554-790-21	SWITCH, POWER (RADIO→TAPE)	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the part specified in the diagrams or the components used on the set.
- -XX,-X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms
  METAL : Metal-film resistor
  METAL OXIDE : Metal Oxide-film resistor
  F : nonflammable
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case,u : μ ,for example :
  uA... : μA..., uPA... : μPA...,
  uPB... : μPB..., uPC... : μPC...,
  uPD... : μPD...
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number, please include the board name.

Ref.No.	Part No.	Description	Remark
*	1-646-964-11	CONTROL BOARD	
		**********	
	3-373-630-01	PLATE, LIGHT GUIDE	
		< DIODE >	
D801	8-719-025-98	DIODE SEL6914A	
D802	8-719-025-98	DIODE SEL6914A	
D803	8-719-025-98	DIODE SEL6914A	
D804	8-719-025-98	DIODE SEL6914A	
		< JUMPER RESISTOR >	
JR801	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR802	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR803	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR811	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR812	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< LIQUID CRYSTAL DISPLAY >	
LCD801	1-810-023-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< PILOT LAMP >	
PL801	1-518-615-21	LAMP, PILOT	
PL802	1-518-615-21	LAMP, PILOT	
		< RESISTOR >	
R801	1-216-176-00	METAL GLAZE 120 5% 1/8W	
R802	1-216-176-00	METAL GLAZE 120 5% 1/8W	
		< SWITCH >	
S801	1-572-704-21	SWITCH, KEY BOARD (LCL/A.MEM)	
S802	1-572-704-21	SWITCH, KEY BOARD (LOUD)	
S803	1-572-704-21	SWITCH, KEY BOARD (FM/AM)	
S804	1-572-704-21	SWITCH, KEY BOARD (1/DOLBY)	
S805	1-572-704-21	SWITCH, KEY BOARD (2/MTL)	
S806	1-572-704-21	SWITCH, KEY BOARD (3/AMS)	
S807	1-572-704-21	SWITCH, KEY BOARD (4)	
S808	1-572-704-21	SWITCH, KEY BOARD (5)	
S809	1-572-704-21	SWITCH, KEY BOARD (6)	
**********			
*	A-3222-535-A	MAIN BOARD, COMPLETE (XR-2900)	
		(Including AM BOARD, COMPLETE)	
		**********	
*	A-3222-537-A	MAIN BOARD, COMPLETE (XR-2600)	
		(Including AM BOARD, COMPLETE)	
		**********	
*	A-3222-554-A	MAIN BOARD, COMPLETE (EXR-14)	
		(Including AM BOARD, COMPLETE)	
		**********	
		< CAPACITOR >	
C1	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C2	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C3	1-163-205-00	CERAMIC CHIP 0.001uF 5% 50V	
C4	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C5	1-163-222-11	CERAMIC CHIP 5PF 0.25PF 50V	
C7	1-124-589-11	ELECT 47uF 20% 16V	
C8	1-163-809-11	CERAMIC CHIP 0.047uF 10% 25V	
C9	1-163-121-00	CERAMIC CHIP 150PF 5% 50V	
C10	1-124-256-00	ELECT 1.5uF 20% 50V	
C11	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C12	1-124-465-00	ELECT 0.47uF 20% 50V	
C13	1-126-160-11	ELECT 1uF 20% 50V	
C14	1-124-589-11	ELECT 47uF 20% 16V	
C15	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C16	1-163-037-11	CERAMIC CHIP 0.022uF 10% 25V	
C17	1-163-097-00	CERAMIC CHIP 15PF 5% 50V	
C18	1-126-163-11	ELECT 4.7uF 20% 50V	
C19	1-163-139-00	CERAMIC CHIP 820PF 5% 50V	

MAIN Including AM

Ref.No.	Part No.	Description			Remark
C20	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C21	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C22	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C23	1-124-589-11	ELECT	47uF	20%	16V
C24	1-126-160-11	ELECT	1uF	20%	50V
C25	1-124-464-11	ELECT	0.22uF	20%	50V
C26	1-163-063-00	CERAMIC CHIP	0.022uF	10%	50V
C27	1-126-160-11	ELECT	1uF	20%	50V
C28	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C29	1-163-986-00	CERAMIC CHIP	0.027uF	10%	25V
C51	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C52	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C53	1-126-784-11	ELECT	33uF	20%	10V
C54	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C55	1-163-084-00	CERAMIC CHIP	1.5PF		50V
C56	1-163-089-00	CERAMIC CHIP	6PF		50V
C57	1-124-465-00	ELECT	0.47uF	20%	50V
C58	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C59	1-124-589-11	ELECT	47uF	20%	16V
C60	1-126-163-11	ELECT	4.7uF	20%	50V
C61	1-126-301-11	ELECT	1uF	20%	50V
C62	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C63	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C64	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C65	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C66	1-124-465-00	ELECT	0.47uF	20%	50V
C67	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C68	1-126-163-11	ELECT	4.7uF	20%	50V
C69	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C70	1-124-589-11	ELECT	47uF	20%	16V
C71	1-126-162-11	ELECT	3.3uF	20%	50V
C72	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C73	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C74	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C75	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C76	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C77	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C101	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V
C102	1-126-301-11	ELECT	1uF	20%	50V
C103	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C104	1-136-171-00	FILM	0.033uF	5%	50V
C105	1-126-785-11	ELECT	47uF	20%	10V
C106	1-163-809-11	CERAMIC CHIP	0.047uF	10% 25V	(XR-2900)
C107	1-126-160-11	ELECT	1uF	20%	50V
C108	1-131-587-11	TANTALUM	0.68uF	5% 35V	(XR-2900)
C109	1-126-163-11	ELECT	4.7uF	20%	50V
C110	1-126-157-11	ELECT	10uF	20%	16V
					(EXR-14/XR-2600)
C111	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
					(EXR-14/XR-2600)
C114	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C115	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C116	1-124-464-11	ELECT	0.22uF	20%	50V
C117	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C201	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V
C202	1-126-301-11	ELECT	1uF	20%	50V
C203	1-163-121-00	CERAMIC CHIP	150PF	5%	50V
C204	1-136-171-00	FILM	0.033uF	5%	50V
C205	1-126-785-11	ELECT	47uF	20%	10V
C206	1-163-809-11	CERAMIC CHIP	0.047uF	10% 25V	(XR-2900)
C207	1-126-160-11	ELECT	1uF	20%	50V
C208	1-131-587-11	TANTALUM	0.68uF	5% 35V	(XR-2900)
C209	1-126-163-11	ELECT	4.7uF	20%	50V
C210	1-126-157-11	ELECT	10uF	20%	16V
					(EXR-14/XR-2600)
C211	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
					(EXR-14/XR-2600)
C214	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C215	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C216	1-124-464-11	ELECT	0.22uF	20%	50V
C217	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C251	1-164-489-11	CERAMIC CHIP	0.22uF	10% 16V	(XR-2900)
C291	1-124-584-00	ELECT	100uF	20%	10V
C292	1-124-584-00	ELECT	100uF	20%	10V
C293	1-126-157-11	ELECT	10uF	20% 16V	(XR-2900)
C294	1-124-584-00	ELECT	100uF	20% 10V	(XR-2900)
C301	1-126-301-11	ELECT	1uF	20% 50V	(XR-2900)
C302	1-163-017-00	CERAMIC CHIP	0.0047uF	5% 50V	(XR-2900)
C303	1-163-809-11	CERAMIC CHIP	0.047uF	10% 25V	(XR-2900)
C304	1-131-344-00	TANTALUM	0.33uF	10% 35V	(XR-2900)
C305	1-124-465-00	ELECT	0.47uF	20% 50V	(XR-2900)
C306	1-126-162-11	ELECT	3.3uF	20% 50V	(XR-2900)
C307	1-124-257-00	ELECT	2.2uF	20% 50V	(XR-2900)
C308	1-124-589-11	ELECT	47uF	20% 16V	(XR-2900)
C351	1-126-163-11	ELECT	4.7uF	20%	50V
C352	1-126-157-11	ELECT	10uF	20%	16V
C353	1-126-157-11	ELECT	10uF	20%	16V
C354	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C355	1-124-584-00	ELECT	100uF	20%	10V
C356	1-124-589-11	ELECT	47uF	20%	16V
C357	1-164-161-11	CERAMIC CHIP	0.0022uF	10%	100V
C358	1-124-556-11	ELECT	2200uF	20%	16V
C359	1-124-360-00	ELECT	1000uF	20%	16V
C361	1-101-004-00	CERAMIC	0.01uF		50V
C362	1-126-934-71	ELECT	220uF	20%	16V
C363	1-101-004-00	CERAMIC	0.01uF		50V
C402	1-162-587-11	CERAMIC CHIP	0.039uF	10%	25V
C411	1-126-157-11	ELECT	10uF	20%	16V
C452	1-162-587-11	CERAMIC CHIP	0.039uF	10%	25V
C501	1-124-257-00	ELECT	2.2uF	20%	50V

Ref.No.	Part No.	Description			Remark
C502	1-124-257-00	ELECT	2.2uF	20%	50V
C503	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
				(XR-2600/2900)	
C504	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C505	1-126-157-11	ELECT	10uF	20%	16V
C551	1-124-257-00	ELECT	2.2uF	20%	50V
C552	1-124-257-00	ELECT	2.2uF	20%	50V
C553	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
				(XR-2600/2900)	
C554	1-163-245-11	CERAMIC CHIP	56PF	5%	50V
C555	1-126-157-11	ELECT	10uF	20%	16V
C591	1-126-925-11	ELECT	470uF	20%	10V
C601	1-124-257-00	ELECT	2.2uF	20%	50V
C602	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C603	1-124-638-11	ELECT	22uF	20%	10V
C604	1-130-773-11	FILM	0.27uF	10%	63V
C605	1-130-773-11	FILM	0.27uF	10%	63V
C651	1-124-257-00	ELECT	2.2uF	20%	50V
C652	1-163-205-00	CERAMIC CHIP	0.001uF	5%	50V
C653	1-124-638-11	ELECT	22uF	20%	10V
C654	1-130-773-11	FILM	0.27uF	10%	63V
C655	1-130-773-11	FILM	0.27uF	10%	63V
C691	1-124-589-11	ELECT	47uF	20%	16V
C692	1-126-923-11	ELECT	220uF	20%	10V
C705	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C706	1-126-157-11	ELECT	10uF	20%	16V
C707	1-126-916-11	ELECT	1000uF	20%	6.3V
C708	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C709	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C710	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C711	1-126-163-11	ELECT	4.7uF	20%	50V
C712	1-126-163-11	ELECT	4.7uF	20%	50V
C713	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C715	1-124-234-00	ELECT	22uF	20%	16V
C716	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C721	1-163-013-00	CERAMIC CHIP	0.0022uF	5%	50V
C722	1-163-013-00	CERAMIC CHIP	0.0022uF	5%	50V
C723	1-163-013-00	CERAMIC CHIP	0.0022uF	5%	50V
C724	1-163-013-00	CERAMIC CHIP	0.0022uF	5%	50V
C725	1-163-013-00	CERAMIC CHIP	0.0022uF	5%	50V
C801	1-162-282-31	CERAMIC	100PF	10%	50V
C802	1-163-255-00	CERAMIC CHIP	150PF	5%	50V
C803	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C805	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V

< FILTER >

CF1	1-567-107-00	FILTER, CERAMIC	10.7MHz
CF2	1-567-250-11	OSCILLATOR, CERAMIC	456kHz
CF51	1-577-644-11	FILTER, CERAMIC	450kHZ
CF52	1-527-981-00	FILTER, CERAMIC	450kHz

Ref.No.	Part No.	Description	Remark
		< CONNECTOR >	
* CNP10	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P	
* CNP501	1-564-782-11	PIN, CONNECTOR 4P	
* CNP502	1-564-784-11	PIN, CONNECTOR 6P	
CNP801	1-566-314-21	PIN, CONNECTOR 10P	
* CNP901	1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P	
		< DIODE >	
D1	8-719-911-19	DIODE 1SS119	
D2	8-719-911-19	DIODE 1SS119	
D3	8-719-911-19	DIODE 1SS119	
D4	8-719-911-19	DIODE 1SS119	
D5	8-719-109-60	DIODE RD2.7ESB2	
D51	8-719-033-70	DIODE KV1583BMTR	
D54	8-719-911-19	DIODE 1SS119	
D55	8-719-911-19	DIODE 1SS119	
D101	8-719-911-19	DIODE 1SS119	
D201	8-719-911-19	DIODE 1SS119	
D301	8-719-200-82	DIODE 11ES2	(XR-2900)
D302	8-719-911-19	DIODE 1SS119	
D351	8-719-983-13	DIODE MTZJ-T-77-3.6B	
D352	8-719-911-19	DIODE 1SS119	
D353	8-719-911-19	DIODE 1SS119	
D354	8-719-911-19	DIODE 1SS119	
D355	8-719-911-19	DIODE 1SS119	
D356	8-719-911-19	DIODE 1SS119	
D357	8-719-911-19	DIODE 1SS119	
D358	8-719-911-19	DIODE 1SS119	
D359	8-719-110-13	DIODE RD9.1ESB2	
D360	8-719-200-82	DIODE 11ES2	
D361	8-719-989-16	DIODE 1S2472	
D362	8-719-200-82	DIODE 11ES2	
D363	8-719-200-82	DIODE 11ES2	
D501	8-719-911-19	DIODE 1SS119	
D691	8-719-911-19	DIODE 1SS119	
D692	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-109-89	DIODE RD5.6ESB2	
D706	8-719-911-19	DIODE 1SS119	
D707	8-719-911-19	DIODE 1SS119	
D708	8-719-911-19	DIODE 1SS119	
D709	8-719-911-19	DIODE 1SS119	
D710	8-719-911-19	DIODE 1SS119	
D711	8-719-911-19	DIODE 1SS119	
D712	8-719-911-19	DIODE 1SS119	
D713	8-719-911-19	DIODE 1SS119	
D714	8-719-911-19	DIODE 1SS119	(XR-2900)
D717	8-719-921-75	DIODE MTZN-10B	
D718	8-719-109-89	DIODE RD5.6ESB2	

MAIN Including AM

Ref.No.	Part No.	Description	Remark
		< FRONTEND >	
FE1	1-465-919-11	FRONT END	
		< IC >	
IC1	8-759-822-57	IC LA1145MF2	
IC2	8-759-821-70	IC LA3430M	
IC51	8-759-821-95	IC LA1137NM	
IC101	8-759-046-31	IC BA328F	
IC102	8-752-050-13	IC CXA1101M	(XR-2900)
IC201	8-759-909-71	IC BA4558F	(EXR-14/XR-2600)
IC301	8-759-800-71	IC LA2010	(XR-2900)
IC321	8-759-106-02	IC uPC4570G2	
IC601	8-759-243-27	IC TA8215H	
IC701	8-759-163-42	IC uPD1708AG-336-00	
		< JACK >	
J1	1-573-995-11	JACK (ANT)	
J501	1-565-319-71	JACK, PIN 2P (PRE OUT)	(XR-2600/2900)
		< JUMPER RESISTOR >	
JR1	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR2	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR3	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR4	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR6	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR7	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR51	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR52	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR101	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR102	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR103	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR104	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR105	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR106	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR107	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR108	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR109	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR110	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR501	1-216-296-00	METAL CHIP 0 5% 1/8W	
		< COIL >	
L1	1-410-324-11	INDUCTOR 4.7uH	
L2	1-414-146-31	INDUCTOR 2.2uH	
L3	1-410-312-11	INDUCTOR 0.22uH	
L5	1-410-513-11	INDUCTOR 22uH	
L51	1-410-513-11	INDUCTOR 22uH	
L52	1-410-513-11	INDUCTOR 22uH	
L53	1-408-418-00	INDUCTOR 56uH	
L54	1-410-506-11	INDUCTOR 5.6uH	

Ref.No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q1	8-729-902-99	TRANSISTOR DTC114TK	
Q51	8-729-266-83	TRANSISTOR 2SC2668-Y	
Q52	8-729-853-64	TRANSISTOR 2SC536SP-G	
Q53	8-729-105-74	TRANSISTOR 2SK523-M1	
Q101	8-729-902-99	TRANSISTOR DTC114TK	(XR-2900)
Q102	8-729-922-87	TRANSISTOR 2SD1757K-RS	
Q201	8-729-902-99	TRANSISTOR DTC114TK	(XR-2900)
Q202	8-729-922-87	TRANSISTOR 2SD1757K-RS	
Q251	8-729-903-30	TRANSISTOR DTC144TK	(XR-2900)
Q301	8-729-807-12	TRANSISTOR 2SD1802-S	(XR-2900)
Q302	8-729-900-61	TRANSISTOR DTA114ES	(XR-2900)
Q303	8-729-901-04	TRANSISTOR DTA114EK	(XR-2900)
Q352	8-729-901-00	TRANSISTOR DTC124EK	
Q353	8-729-216-22	TRANSISTOR 2SA1162-G	
Q354	8-729-209-15	TRANSISTOR 2SD2012	
Q355	8-729-901-03	TRANSISTOR DTC144WK	
Q356	8-729-988-13	TRANSISTOR 2SA881-R	
Q357	8-729-901-00	TRANSISTOR DTC124EK	(XR-2900)
Q358	8-729-906-45	TRANSISTOR DTA143XK	
Q359	8-729-901-00	TRANSISTOR DTC124EK	
Q360	8-729-205-02	TRANSISTOR 2SA1150-Y	
Q402	8-729-902-99	TRANSISTOR DTC114TK	
Q452	8-729-902-99	TRANSISTOR DTC114TK	
Q601	8-729-907-34	TRANSISTOR 2SD1468S-S	
Q651	8-729-907-34	TRANSISTOR 2SD1468S-S	
Q705	8-729-967-32	TRANSISTOR 2SC2673	
Q706	8-729-016-76	TRANSISTOR 2SC2412KLN-E	
Q707	8-729-016-76	TRANSISTOR 2SC2412KLN-E	
Q708	8-729-119-78	TRANSISTOR 2SC2785-HFE	
		< RESISTOR >	
R1	1-216-067-00	METAL GLAZE 5.6K 5% 1/10W	
R2	1-216-001-00	METAL CHIP 10 5% 1/10W	
R3	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R4	1-216-037-00	METAL CHIP 330 5% 1/10W	
R5	1-216-689-11	METAL CHIP 39K 0.5% 1/10W	
R6	1-216-075-00	METAL CHIP 12K 5% 1/10W	
R7	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R8	1-216-070-00	METAL CHIP 7.5K 5% 1/10W	
R9	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R10	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R11	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R12	1-216-083-00	METAL CHIP 27K 5% 1/10W	
R13	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R14	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R15	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R16	1-216-091-00	METAL CHIP 56K 5% 1/10W	
R17	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	

Ref.No.	Part No.	Description				Remark
R18	1-216-150-00	METAL GLAZE	10	5%	1/8W	
R19	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R23	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R24	1-216-689-11	METAL CHIP	39K	0.5%	1/10W	
R25	1-216-092-00	METAL GLAZE	62K	5%	1/10W	
R26	1-249-438-11	CARBON	56K	5%	1/4W	
R27	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R28	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R29	1-249-438-11	CARBON	56K	5%	1/4W	
R30	1-249-441-11	CARBON	100K	5%	1/4W	
R31	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R32	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R51	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R52	1-216-043-00	METAL CHIP	560	5%	1/10W	
R53	1-216-121-00	METAL CHIP	1M	5%	1/10W	
R54	1-216-171-00	METAL GLAZE	75	5%	1/8W	
R55	1-216-041-00	METAL CHIP	470	5%	1/10W	
R56	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R57	1-216-246-00	METAL GLAZE	100K	5%	1/8W	
R58	1-216-198-00	METAL CHIP	1K	5%	1/8W	
R59	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R60	1-216-064-00	METAL CHIP	4.3K	5%	1/10W	
R61	1-216-021-00	METAL CHIP	68	5%	1/10W	
R62	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R63	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R64	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R65	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R66	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R67	1-216-111-00	METAL CHIP	390K	5%	1/10W	
R68	1-247-881-00	CARBON	120K	5%	1/4W	
R69	1-247-881-00	CARBON	120K	5%	1/4W	
R101	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R102	1-216-064-00	METAL CHIP	4.3K	5%	1/10W	
R103	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R104	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R105	1-216-071-00	METAL CHIP	8.2K	5%	1/10W	(XR-2900)
R106	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R107	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	(XR-2900)
R108	1-216-109-00	METAL CHIP	330K	5%	1/10W	(XR-2900)
R109	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R110	1-249-406-11	CARBON	120	5%	1/4W	(EXR-14/XR-2600)
R111	1-216-085-00	METAL CHIP	33K	5%	1/10W	(EXR-14/XR-2600)
R112	1-216-097-00	METAL CHIP	100K	5%	1/10W	(EXR-14/XR-2600)
R113	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R114	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R115	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R119	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R120	1-216-097-00	METAL CHIP	100K	5%	1/10W	(EXR-14/XR-2600)
R121	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	(EXR-14/XR-2600)
R194	1-216-009-00	METAL CHIP	22	5%	1/10W	
R201	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R202	1-216-064-00	METAL CHIP	4.3K	5%	1/10W	
R203	1-216-097-00	METAL CHIP	100K	5%	1/10W	
R204	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R205	1-216-220-00	METAL GLAZE	8.2K	5%	1/8W	(XR-2900)
R206	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R207	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	(XR-2900)
R208	1-216-109-00	METAL CHIP	330K	5%	1/10W	(XR-2900)
R209	1-216-051-00	METAL CHIP	1.2K	5%	1/10W	
R210	1-249-406-11	CARBON	120	5%	1/4W	(EXR-14/XR-2600)
R211	1-216-085-00	METAL CHIP	33K	5%	1/10W	(EXR-14/XR-2600)
R212	1-216-097-00	METAL CHIP	100K	5%	1/10W	(EXR-14/XR-2600)
R213	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R214	1-216-055-00	METAL CHIP	1.8K	5%	1/10W	
R215	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R219	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R220	1-216-097-00	METAL CHIP	100K	5%	1/10W	(EXR-14/XR-2600)
R221	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	(EXR-14/XR-2600)
R251	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-2900)
R290	1-216-009-00	METAL CHIP	22	5%	1/10W	
R291	1-216-105-00	METAL CHIP	220K	5%	1/10W	(XR-2900)
R293	1-216-088-00	METAL CHIP	43K	5%	1/10W	(XR-2900)
R294	1-216-081-00	METAL CHIP	22K	5%	1/10W	(XR-2900)
R302	1-216-112-00	METAL GLAZE	430K	5%	1/10W	(XR-2900)
R303	1-216-097-00	METAL CHIP	100K	5%	1/10W	(XR-2900)
R304	1-216-025-00	METAL CHIP	100	5%	1/10W	(XR-2900)
R305	1-216-089-00	METAL CHIP	47K	5%	1/10W	(XR-2900)
R306	1-216-025-00	METAL CHIP	100	5%	1/10W	(XR-2900)
R352	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R353	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R354	1-216-029-00	METAL CHIP	150	5%	1/10W	
R355	1-216-093-00	METAL CHIP	68K	5%	1/10W	
R356	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R357	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R358	1-216-089-00	METAL CHIP	47K	5%	1/10W	
R359	1-216-091-00	METAL CHIP	56K	5%	1/10W	
R360	1-216-049-00	METAL CHIP	1K	5%	1/10W	
R361	1-247-778-00	CARBON	6.2	5%	1/4W	
R362	1-247-778-00	CARBON	6.2	5%	1/4W	
R364	1-216-009-00	METAL CHIP	22	5%	1/10W	
R368	1-216-105-00	METAL CHIP	220K	5%	1/10W	

MAIN Including AM

Ref.No.	Part No.	Description			Remark
R369	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R370	1-249-409-11	CARBON	220	5%	1/4W
R371	1-249-409-11	CARBON	220	5%	1/4W
R372	1-249-393-11	CARBON	10	5%	1/4W
R373	1-249-393-11	CARBON	10	5%	1/4W
R374	1-249-393-11	CARBON	10	5%	1/4W
R401	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R403	1-216-090-00	METAL CHIP	51K	5%	1/10W
R411	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R451	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R453	1-216-090-00	METAL CHIP	51K	5%	1/10W
R501	1-216-249-00	METAL GLAZE	130K	5%	1/8W
R502	1-216-101-00	METAL CHIP	150K	5%	1/10W
R503	1-216-049-00	METAL CHIP	1K	5%	1/10W
R504	1-216-049-00	METAL CHIP	1K	5%	1/10W (XR-2600/2900)
R505	1-216-089-00	METAL CHIP	47K	5%	1/10W (XR-2600/2900)
R506	1-216-085-00	METAL CHIP	33K	5%	1/10W
R507	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R551	1-216-100-00	METAL GLAZE	130K	5%	1/10W
R552	1-216-101-00	METAL CHIP	150K	5%	1/10W
R553	1-216-049-00	METAL CHIP	1K	5%	1/10W
R554	1-216-049-00	METAL CHIP	1K	5%	1/10W (XR-2600/2900)
R555	1-216-089-00	METAL CHIP	47K	5%	1/10W (XR-2600/2900)
R556	1-216-085-00	METAL CHIP	33K	5%	1/10W
R557	1-216-063-00	METAL CHIP	3.9K	5%	1/10W
R591	1-216-001-00	METAL CHIP	10	5%	1/10W
R601	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R602	1-216-204-00	METAL GLAZE	1.8K	5%	1/8W
R603	1-216-041-00	METAL CHIP	470	5%	1/10W
R605	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R606	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R651	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R652	1-216-204-00	METAL GLAZE	1.8K	5%	1/8W
R653	1-216-041-00	METAL CHIP	470	5%	1/10W
R655	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R656	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R691	1-216-049-00	METAL CHIP	1K	5%	1/10W
R692	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R693	1-216-097-00	METAL CHIP	100K	5%	1/10W
R695	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R706	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R707	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R708	1-216-689-11	METAL CHIP	39K	0.5%	1/10W
R710	1-216-089-00	METAL CHIP	47K	5%	1/10W
R711	1-216-089-00	METAL CHIP	47K	5%	1/10W
R712	1-216-089-00	METAL CHIP	47K	5%	1/10W
R713	1-216-089-00	METAL CHIP	47K	5%	1/10W
R714	1-216-089-00	METAL CHIP	47K	5%	1/10W

Ref.No.	Part No.	Description			Remark
R715	1-216-073-00	METAL CHIP	10K	5%	1/10W
R716	1-216-049-00	METAL CHIP	1K	5%	1/10W
R717	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R718	1-216-121-00	METAL CHIP	1M	5%	1/10W
R719	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R720	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R721	1-249-421-11	CARBON	2.2K	5%	1/4W
R722	1-216-049-00	METAL CHIP	1K	5%	1/10W
R723	1-249-393-11	CARBON	10	5%	1/4W
R724	1-216-097-00	METAL CHIP	100K	5%	1/10W
R725	1-216-097-00	METAL CHIP	100K	5%	1/10W
R726	1-216-097-00	METAL CHIP	100K	5%	1/10W
R727	1-216-109-00	METAL CHIP	330K	5%	1/10W
R728	1-249-421-11	CARBON	2.2K	5%	1/4W

< VARIABLE RESISTOR >

RV1	1-228-995-00	RES, ADJ, METAL 22K	
RV2	1-228-994-00	RES, ADJ, METAL 10K	
RV51	1-228-995-00	RES, ADJ, METAL 22K	
RV101	1-228-989-00	RES, ADJ, METAL 470	(XR-2900)
RV201	1-228-989-00	RES, ADJ, METAL 470	(XR-2900)
RV401 S401	1-223-319-11	RES, VAR CARBON 50KX4/200KX2/80X2 (TREBLE/BASS/VOLUME/FADER/POWER)	
RV402 S851 S852 S853	1-241-680-11	RES, VAR, CARBON 100K (SW) (BALANCE/SEEK/DISP/TUNING)	

< TRANSFORMER >

T1	1-404-856-11	COIL, DISCRIMINATOR 10.7MHz
T51	1-406-604-11	COIL (ANT)
T52	1-406-600-11	COIL (RF)
T53	1-406-601-11	COIL (RF)
T54	1-406-605-11	COIL (OSC)
T55	1-406-602-11	TRANSFORMER, IF 450kHz
T56	1-406-603-11	TRANSFORMER, IF 450kHz

< THERMISTOR(POSITIVE) >

THP301	1-809-148-11	THERMISTOR, POSITIVE

< VIBRATOR >

X701	1-567-713-11	VIBRATOR, CRYSTAL

****

Ref.No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
7	1-751-021-11	CABLE, FLAT (28 CORE)	
8	1-535-667-81	WIRE (FLAT TYPE) (9 CORE)	
61	1-424-629-21	COIL, CHOKE 500uH	
122	1-543-717-11	HEAD, MAGNETIC (PLAYBACK)	
F1	1-533-287-11	FUSE (1A)	
F2	1-533-301-11	FUSE (6A)	
M701	X-3364-496-1	MOTOR ASSY	
PM701	1-454-464-12	SOLENOID, PLUNGER(AMS SENSOR)	(XR-2900)
S701	1-692-036-11	SWITCH, SLIDE (FWD→REV)	
S702	1-692-065-11	SWITCH, LEAF (MUTE)	
S703	1-554-790-21	SWITCH, POWER (RADIO→TAPE)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-751-069-11	CORD (WITH CONNECTOR AND FUSE)	(XR-2600/2900)
	1-751-069-21	CORD (WITH CONNECTOR AND FUSE)	(EXR-14)
	3-349-410-01	BUSHING	
	3-373-625-21	KNOB (B) (VOLUME/TUNING)	(EXR-14)
	3-383-093-01	KNOB (B) (VOLUME/TUNING)	(XR-2600/2900)
*	3-375-632-11	CUSHION (UPPER)	
*	3-375-633-12	CUSHION (LOWER)	
	3-386-828-01	SCREW, FITTING	
*	3-387-756-01	INDIVIDUAL CARTON	(XR-2900)
*	3-387-758-01	INDIVIDUAL CARTON	(XR-2600)
*	3-387-763-01	INDIVIDUAL CARTON	(EXR-14)
	3-575-039-00	NUT, CONTROL	
	3-756-546-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	(XR-2600/2900)
	3-756-547-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	(XR-2600/2900)
	3-756-550-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	(EXR-14)
	3-756-552-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	(EXR-14)
	X-3364-774-1	KNOB(2)ASSY(FADER/BALANCE)	(EXR-14)
	X-3365-672-1	KNOB(A)ASSY(FADER/BALANCE)	(XR-2600/2900)
	9-911-841-XX	CUSHION, ANTENNA	
**********			

Ref.No.	Part No.	Description	Remark
		**********	
		HARDWARE LIST	
		**********	
#1	7-621-770-67	SCREW +PTT 2.6X6 (S)	
#2	7-621-773-86	SCREW +PTT 2.6X4 (S)	
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#4	7-621-555-10	SCREW +K 2X3	
#5	7-621-255-25	SCREW +PTT 2X4 (S)	
#6	7-627-553-88	SCREW, PRECISION +P 2X7	
#7	7-624-102-04	STOP RING 1.5, TYPE -E	
#8	7-624-104-04	STOP RING 2.0, TYPE -E	
#9	7-624-118-01	RING, RETAINING E-2.5	
#10	7-627-553-48	SCREW, PRECISION +P 2X4	
#11	7-621-255-15	SCREW +P 2X3	
#12	7-621-591-00	SCREW +K 2X4	
#13	7-682-550-04	SCREW +PTT 3X12 (S)	
#14	7-621-255-40	SCREW +P 2X6	(XR-2900)
**********			

MOUNTING HARDWARE

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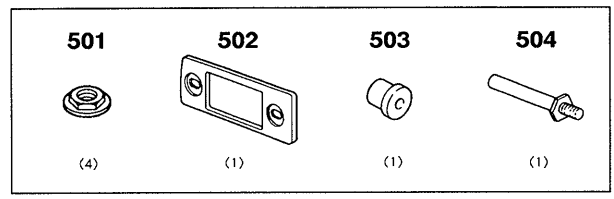

501	3-575-039-00	NUT, CONTROL	
502	3-383-094-41	PLATE, TRIM	(EXR-14)
502	3-383-094-51	PLATE, TRIM	(XR-2600/2900)
503	3-349-410-01	BUSHING	
504	3-386-828-01	SCREW, FITTING	

9-957-681-11

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EXR-14/XR-2600/2900

SONY
SERVICE MANUAL

US Model
EXR-14
US Model
Canadian Model
XR-2600/2900

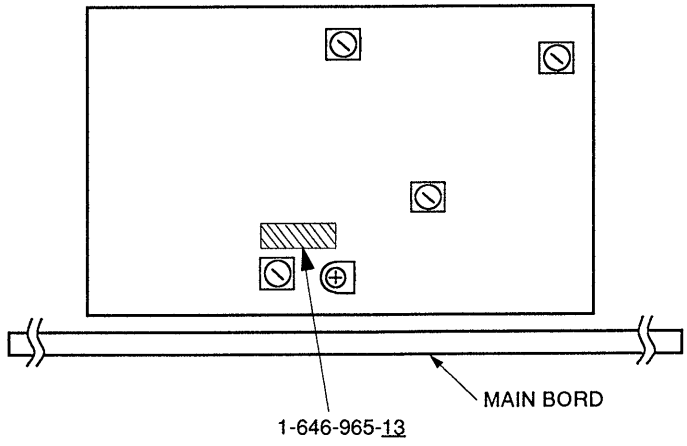
SUPPLEMENT-1

File this Supplement with the Service Manual.

Subject : PC Boards change

New type identification:

【AM BOARD】 – Component side –



9-957-681-81

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CHANGED PARTS LIST

PAGE	FORMER	NEW
36	C52 1-163-037-11 CERAMIC (CHIP) 0.022uF 10% 25V C70 1-124-589-11 ELECT 47uF 20% 16V C75 1-164-232-11 CERAMIC (CHIP) 0.01uF 50V	C52 1-163-017-00 CERAMIC (CHIP) 0.047uF 10% 50V C70 1-126-176-11 ELECT 220uF 20% 10V C75 1-163-022-00 CERAMIC (CHIP) 0.012uF 10% 50V
37	C721 1-163-013-00 CERAMIC (CHIP) 0.0022uF 5% 50V C725 1-163-013-00 CERAMIC (CHIP) 0.0022uF 5% 50V C807 ———— C813 ———— D61 ———— D62 ———— D361 8-719-989-16 DIODE 1S2472 D821 ————	C721 1-163-139-00 CERAMIC (CHIP) 820pF 10% 50V C725 ———— C807 1-163-809-11 CERAMIC (CHIP) 0.047uF 10% 25V C813 1-163-809-11 CERAMIC (CHIP) 0.047uF 10% 25V D61 8-719-901-33 DIODE 1SS133 D62 8-719-901-33 DIODE 1SS133 D361 8-719-989-62 DIODE RL254 D821 8-719-986-73 DIODE RB441Q
38	FE1 1-465-919-11 FRONT END, FM JR5 ———— JR8 ———— JR9 ———— JR10 ———— JR11 ———— JR52 1-216-295-00 METAL CHIP 0 5% 1/10W JR105 1-216-296-00 METAL CHIP 0 5% 1/8W JR106 1-216-296-00 METAL CHIP 0 5% 1/8W JR107 1-216-296-00 METAL CHIP 0 5% 1/8W JR108 1-216-296-00 METAL CHIP 0 5% 1/8W JR109 1-216-296-00 METAL CHIP 0 5% 1/8W JR110 1-216-296-00 METAL CHIP 0 5% 1/8W L53 1-408-418-00 INDUCTOR 56uH Q601 8-729-907-34 TRANSISTOR 2SD1468S-S Q602 8-729-907-34 TRANSISTOR 2SD1468S-S Q821 ———— R5 1-216-689-11 METAL CHIP 39K 0.5% 1/10W R7 1-216-081-00 METAL CHIP 22K 5% 1/10W	FE1 1-693-223-11 FRONT END, FM JR5 1-216-295-00 METAL CHIP 0 5% 1/10W JR8 1-216-295-00 METAL CHIP 0 5% 1/10W (XR-2900) JR9 1-216-295-00 METAL CHIP 0 5% 1/10W JR10 1-216-295-00 METAL CHIP 0 5% 1/10W JR11 1-216-295-00 METAL CHIP 0 5% 1/10W JR52 ———— JR105 1-216-296-00 METAL CHIP 0 5% 1/8W (XR-2900) JR106 1-216-296-00 METAL CHIP 0 5% 1/8W (XR-2900) JR107 1-216-296-00 METAL CHIP 0 5% 1/8W (XR-2900) JR108 1-216-296-00 METAL CHIP 0 5% 1/8W (XR-2900) JR109 ———— JR110 ———— L53 1-410-518-21 INDUCTOR 56uH Q601 8-729-907-34 TRANSISTOR 2SD1468S-S (XR-2900) Q601 8-729-119-78 TRANSISTOR 2SC2785-HFE (EXR-14/XR-2600) Q602 8-729-907-34 TRANSISTOR 2SD1468S-S (XR-2900) Q602 8-729-119-78 TRANSISTOR 2SC2785-HFE (EXR-14/XR-2600) Q821 8-729-205-02 TRANSISTOR 2SA1150-Y R5 1-216-083-00 METAL CHIP 27K 5% 1/10W R7 1-216-075-00 METAL CHIP 12K 5% 1/10W
39	R25 1-216-092-00 METAL CHIP 62K 5% 1/10W R26 1-249-438-11 CARBON 56K 5% 1/4W R27 1-249-438-11 CARBON 56K 5% 1/4W R32 1-216-089-00 METAL CHIP 47K 5% 1/10W R65 1-216-085-00 METAL CHIP 33K 5% 1/10W R68 1-247-881-00 CARBON 120K 5% 1/4W R69 1-247-881-00 CARBON 120K 5% 1/4W R106 1-216-081-00 METAL CHIP 22K 5% 1/10W R109 1-216-081-00 METAL CHIP 1.2K 5% 1/10W R205 1-216-220-00 METAL CHIP 8.2K 5% 1/8W (XR-2900) R206 1-216-081-00 METAL CHIP 22K 5% 1/10W R291 1-216-105-00 METAL CHIP 220K 5% 1/10W (XR-2900)	R25 1-216-090-00 METAL CHIP 51K 5% 1/10W R26 1-249-440-11 CARBON 82K 5% 1/4W R27 1-249-440-11 CARBON 82K 5% 1/4W R32 1-216-238-00 METAL CHIP 4.7K 5% 1/8W R65 1-249-435-11 CARBON 33K 5% 1/4W R68 1-216-097-00 METAL CHIP 100K 5% 1/10W R69 1-216-085-00 METAL CHIP 33K 5% 1/10W R106 1-216-085-00 METAL CHIP 33K 5% 1/10W R109 1-216-200-00 METAL CHIP 1.2K 5% 1/8W R205 1-216-071-00 METAL CHIP 8.2K 5% 1/10W (XR-2900) R206 1-216-085-00 METAL CHIP 33K 5% 1/10W R291 1-247-887-00 CARBON 220K 5% 1/4W (XR-2900)

PAGE	FORMER	NEW
40	R505 1-216-089-00 METAL CHIP 47K 5% 1/10W (XR-2600/2900)	R505 1-216-089-00 METAL CHIP 47K 5% 1/10W
	R507 1-216-063-00 METAL CHIP 3.9K 5% 1/10W	R507 1-216-061-00 METAL CHIP 3.3K 5% 1/10W
	R505 1-216-089-00 METAL CHIP 47K 5% 1/10W (XR-2600/2900)	R505 1-216-089-00 METAL CHIP 47K 5% 1/10W
	R507 1-216-063-00 METAL CHIP 3.9K 5% 1/10W	R507 1-216-061-00 METAL CHIP 3.3K 5% 1/10W
	R602 1-216-204-00 METAL CHIP 1.8K 5% 1/8W	R602 1-216-210-00 METAL CHIP 3.3K 5% 1/8W
	R652 1-216-204-00 METAL CHIP 1.8K 5% 1/8W	R652 1-216-210-00 METAL CHIP 3.3K 5% 1/8W
	R821 ————	R821 1-216-214-00 METAL CHIP 4.7K 5% 1/8W
	RV51 1-228-995-00 RES, ADJ, METAL 22K	RV51 1-228-994-00 RES, ADJ, METAL 10K

PRINTED WIRING BOARDS (EXR-14/XR-2600 model)

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D1	C-11	D718	F-13
D2	C-11	D801	F-7
D3	D-13	D802	F-8
D4	E-13	D803	G-8
D5	E-13	D804	G-7
D51	C-7	D821	C-12
D54	D-11		
D55	C-8	IC1	D-12
D61	D-13	IC2	E-13
D62	D-13	IC51	D-7
D101	C-12	IC101	B-12
D201	D-12	IC201	E-15
D302	C-12	IC321	F-16
D351	C-16	IC601	B-14
D352	C-13	IC701	F-14
D353	C-13		
D354	D-16	Q1	C-11
D355	C-14	Q51	D-6
D356	C-14	Q52	D-6
D357	F-15	Q53	D-6
D358	C-16	Q102	E-17
D359	E-17	Q202	E-17
D360	D-17	Q352	D-16
D361	C-16	Q353	C-16
D362	B-17	Q354	D-17
D363	C-17	Q355	C-17
D501	E-16	Q356	D-17
D691	C-16	Q358	D-11
D692	C-15	Q359	D-12
D704	F-13	Q360	D-11
D705	G-14	Q402	F-16
D706	G-12	Q452	F-16
D707	G-12	Q601	C-14
D708	G-12	Q651	C-14
D709	F-11	Q705	F-13
D710	F-11	Q706	F-12
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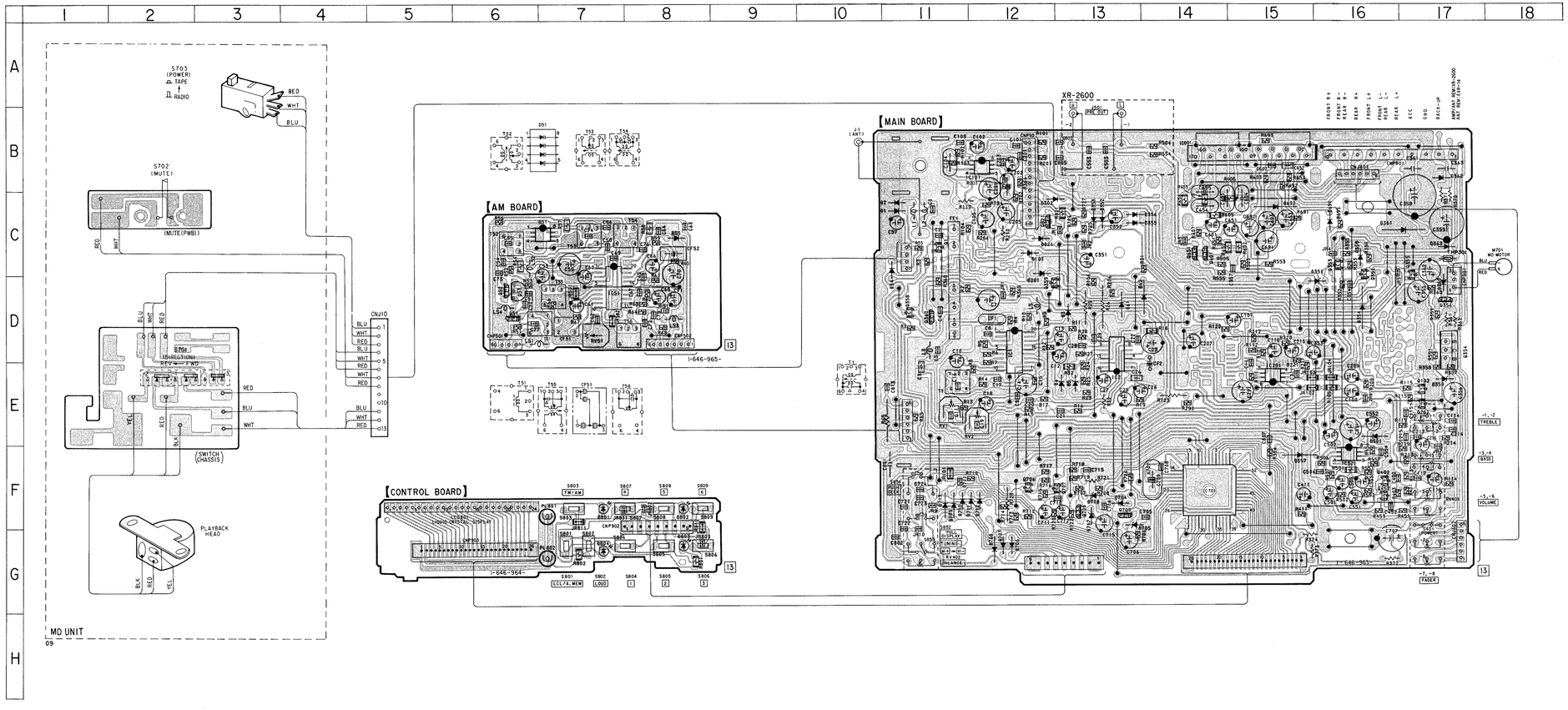
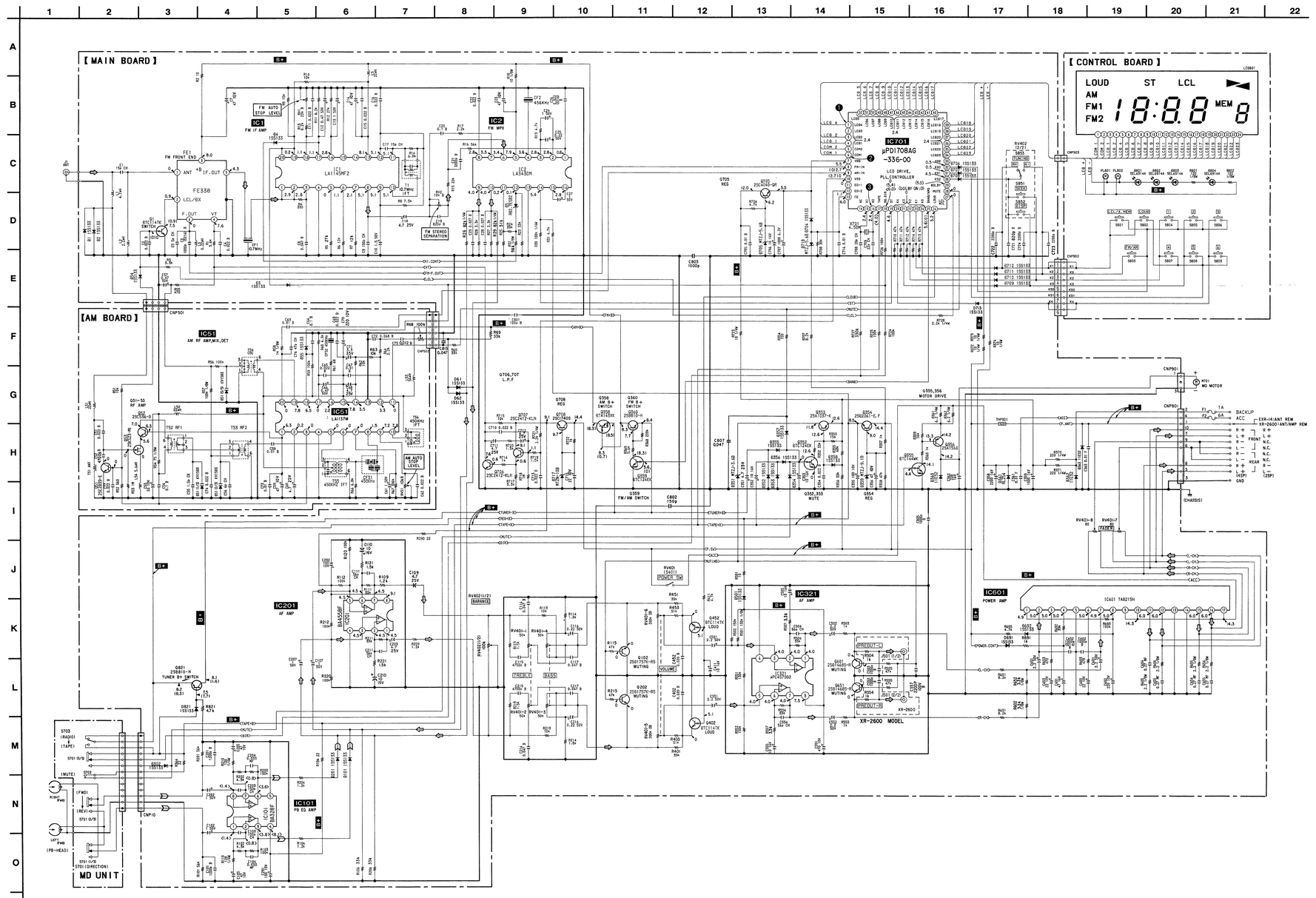
D712	F-12	Q708	F-13
D713	F-11	Q821	C-12
D717	F-13		

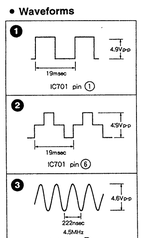


Note:
- ○—— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enable seeing.

SCHEMATIC DIAGRAM (EXR-14/XR-2600 model)

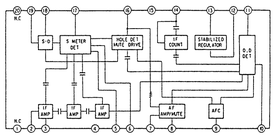


• Waveforms

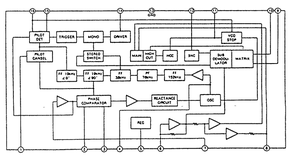


• IC BLOCK DIAGRAMS

IC1 LA1145MF2



IC2 LA3430M



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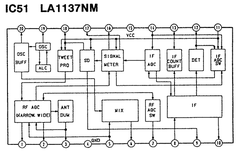
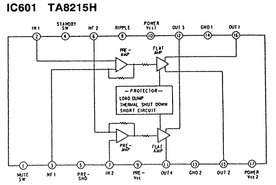


IC601 TA8215H

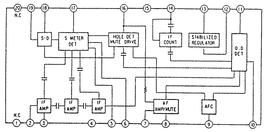


Note:

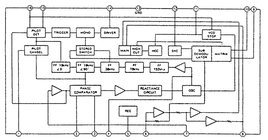
- All capacitors are in μF unless otherwise noted. pF : μμF
  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BACK-UP cords.
- Voltage and waveforms are dc with respect to ground under no -signal (detuned) conditions.
  no mark :FM
  ( ) :AM
  〈 〉:TAPE
- Voltages are taken with a VOM. (Input impedance 10MΩ)
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : PB

• IC BLOCK DIAGRAMS

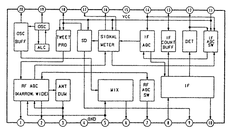
IC1 LA1145MF2



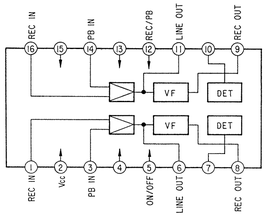
IC2 LA3430M



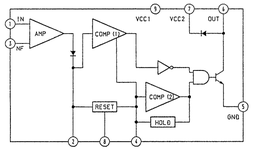
IC51 LA1137NM



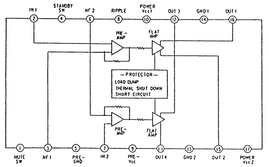
IC102 CXA1101M



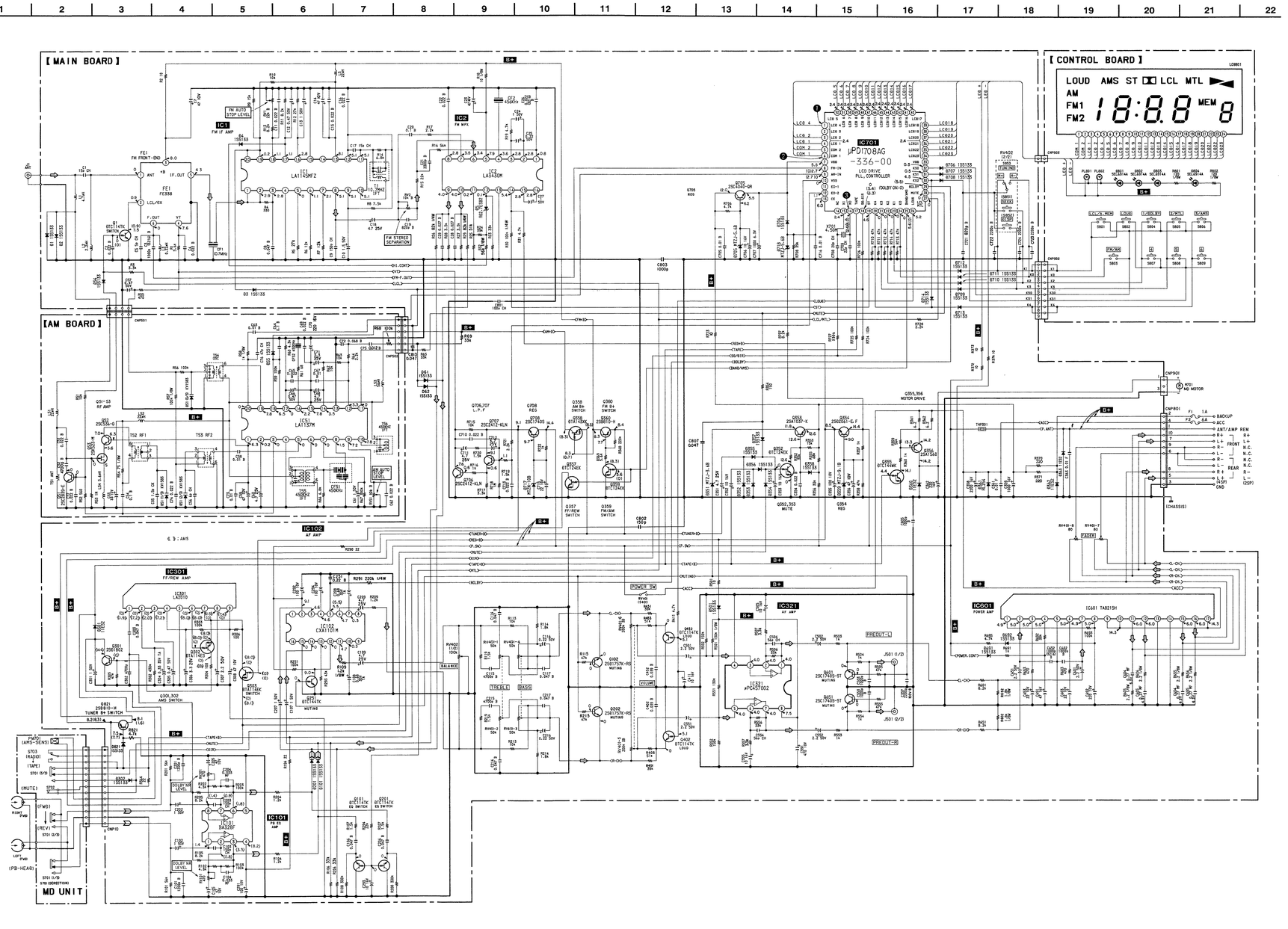
IC301 LA2010



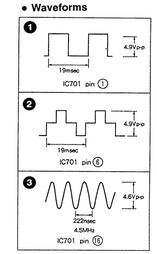
IC601 TA8215H



SCHEMATIC DIAGRAM (XR-2900 model)



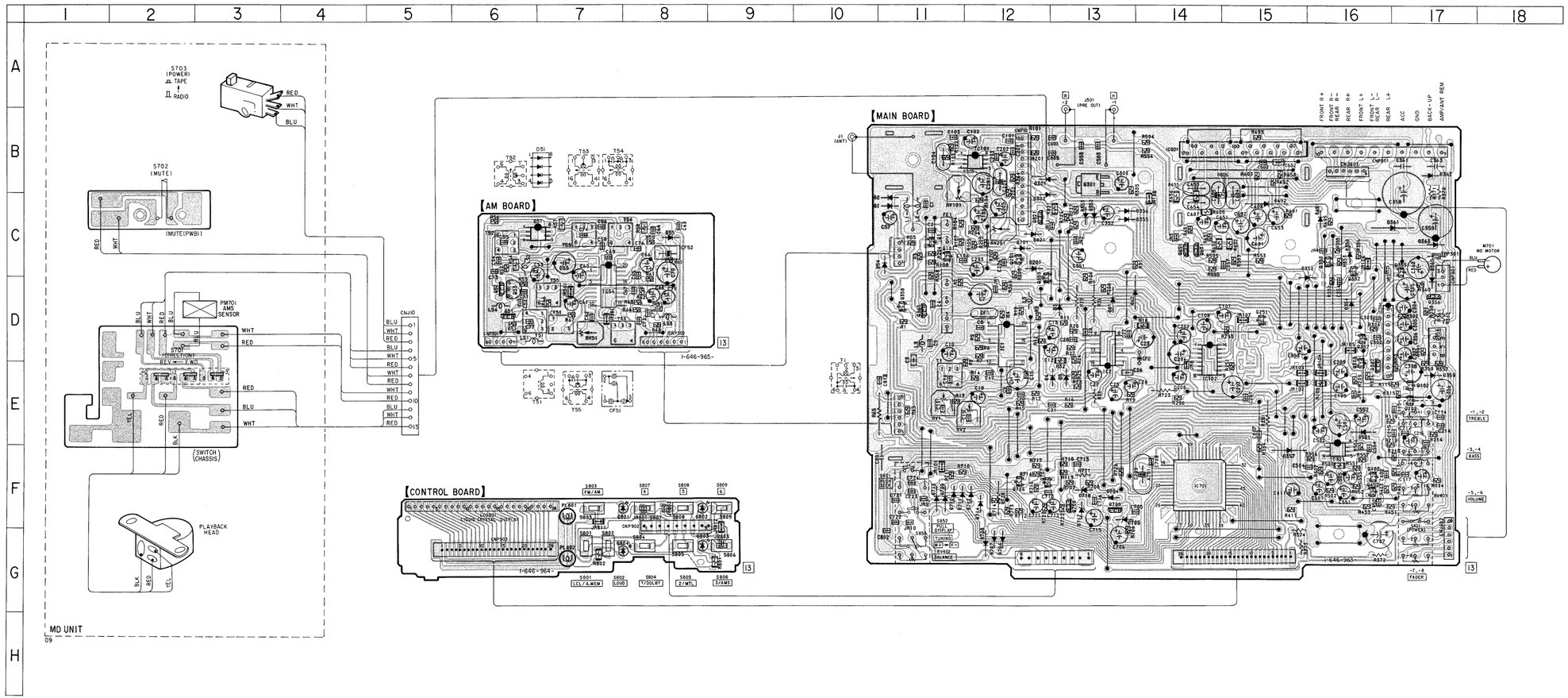
• Waveforms



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ line.
- ▭ : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BACK-UP cords.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : AM
  〈 〉 : TAPE
- Voltages are taken with a VOM. (Input impedance 10MΩ)
  Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
  Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : PB

PRINTED WIRING BOARDS (XR-2900 model)



- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D1	C-10	D803	G-8
D2	C-10	D804	G-7
D3	D-13	D821	C-12
D4	E-12		
D5	E-13	IC1	D-12
D51	C-6	IC2	E-13
D54	C-11	IC51	D-7
D55	C-8	IC101	B-12
D61	D-13	IC102	E-14
D62	D-13	IC301	D-16
D101	C-12	IC321	F-16
D201	C-12	IC601	B-14
D301	B-12	IC701	F-14
D302	C-12		
D351	C-16	Q1	C-11
D352	C-13	Q51	D-6
D353	C-13	Q52	D-6
D354	D-16	Q53	D-6
D355	C-14	Q101	C-11
D356	C-14	Q102	E-17
D357	F-15	Q201	C-12
D358	C-16	Q202	E-17
D359	E-17	Q251	D-15
D360	C-17	Q301	B-13
D361	C-17	Q302	E-16
D362	B-17	Q303	E-16
D363	C-17	Q352	D-16
D501	E-16	Q353	C-16
D691	C-16	Q354	D-17
D692	C-15	Q355	C-17
D704	F-13	Q356	D-17
D705	F-13	Q357	D-16
D706	G-12	Q358	D-11
D707	G-12	Q359	D-12
D708	G-12	Q360	D-11
D709	F-11	Q402	F-16
D710	F-11	Q452	F-16
D711	F-12	Q601	C-14
D712	F-12	Q651	C-14
D713	F-11	Q705	F-13
D714	F-12	Q706	F-12
D717	F-13	Q707	F-12
D718	F-13	Q708	F-13
D801	F-7	Q821	C-12
D802	F-8		

Note:
- ○—— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enable seeing.